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Eclectic Magazine

OF

FOREIGN LITERATURE, SCIENCE, AND ART.

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plete in 63 vols.

GEOGRAPHICAL AND SCIENTIFIC RESULTS OF THE ENGLISH ARCTIC EXPEDITION.*

'JACK,' said a seaman to his comrade, when they first fell in with ice in one of M'Clintock's Arctic voyages, 'you look as pale as if you had seen a ghost.' 'I

haven't seen him yet,' answered Jack in hollow tones, 'but the Captain has. From what I heard him say to the first Lieutenant, there's a old beggar called Zero a-prowling about the ship. "Down to zero" was the Captain's very words, and in my opinion, shipmate, that is where this ship is going.'

The expedition which has just returned to England with Nares and Stephenson probably know more about 'old Zero' than any other living men, for they have seen the thermometer register a lower temperature for a longer time together than has ever before been experienced.

* 1. *Papers and Correspondence relating to the Equipment and Fitting-out of the Arctic Expedition of 1875; including the Report of the Admiralty Arctic Committee.* Presented to both Houses of Parliament, 1875.

2. *Further Papers*, 1876.

3. *Arctic Expedition of 1875-6. Reports of Sir George Nares, K.C.B., Captain Stephenson, C.B., and the Skidding Journals of Captain Markham, Commander Beaumont, and Commander Aldrich.*

4. *Report of Captain Allen Young, R.Y.S., Arctic Yacht 'Pandora.'*

5. *Arctic Manual and Instructions; suggested by the Arctic Committee of the Royal Society.* London, 1875.

6. *Arctic Geography and Ethnology.* By the President and Council of the Royal Geographical Society. London, 1875.

7. *Oesterreichisch-Ungarische Nordpol-Expedition in den Jahren 1872-1874.* Von Julius Payer. Wien, 1876. (The same translated into English. London, 1876.)

8. *Threshold of the Unknown Region.* By Clements Markham, C.B. London, 1876. Fourth Edition.

9. *Report to the President of the United States in the matter of the Disaster to the United States Exploring Expedition towards the North Pole; accompanied by a Report of the Examination of the Rescued Party.* Submitted by the Secretary of the Navy. Washington, 1873.

NEW SERIES.—VOL. XXV., No. 4

They started on the 29th of May 1875, with orders to reach the Pole, if possible, and perform certain other duties which were duly set forth for their guidance. They returned in October 1876, and though they did not reach the Pole, they achieved many of the scientific results that those most able to judge think possible or necessary, and, what is far better, have exhibited to the world a model of quiet heroism under privations the extreme nature of which are by no means as yet generally known. A great number of expeditions have been at various times sent out for the purpose of Arctic exploration; but this is the first, the avowed object of which was to get to the Pole; none has ever been so well equipped, and, it must in truth be added, none has ever broken down in health so completely in so short a time.

The explanation of this apparent paradox is to be found in the frightful nature of the toil which they underwent. It may safely be asserted that in no former journeys has the attempt been made to travel for any distance over ice so formidable as that of the Polar Ocean, on whose desolate shores the 'Alert' passed the winter of 1875.

The instructions under which the expedition sailed are given at length in the 'Papers and Correspondence relating to the Equipment and Fitting-out of the Arctic Expedition of 1875,' presented to both Houses of Parliament.

It will be only possible for us within the limits of space at our disposal to give a short account of some of the more prominent geographical and scientific questions upon which the expedition was instructed to report.

We have often heard the question asked, what was the use of despatching such an expedition, and we have even heard it disputed whether any object likely to be attained by it was worth the expenditure of money, labor, hardship, and perhaps life involved in the undertaking. The following pages contain such an answer as we are able to give to such inquiries. It must be understood at the outset that the reports before us deal only, or at least mainly, with the outside of things. Facts have been amassed by careful observers, but they have not yet been classified and arranged. All we can do is to deal with such de-

tails as are before us up to the present time. The deeds actually accomplished remind us somewhat of the American gentleman who could 'dive deeper and come up drier' than any other man. The expedition has contrived just to surpass all previous explorers at all points. The 'Alert' has been further north than any other vessel in the world. Captain Markham and Mr. Parr have been nearer the Pole than any other men. The crews have passed through the longest period of darkness without seeing the sun that has ever been faced by human beings, and they have endured the most intense cold that has ever been registered. All this is very satisfactory, though some disappointment has been expressed that they did not actually attain the Pole. Nevertheless, on all hands, full justice has been done to the gallantry of officers and men, and every one gives a willing tribute of admiration to the personal bravery and self-devotion with which hardships and privations have been borne. It need hardly be said to those who are acquainted with the real objects to be attained that failure to reach the actual Pole is not of itself a matter of regret. No doubt the national vanity would have been flattered if the English flag had actually waved from a staff planted over the axis of rotation of the earth; but it would have been but an empty boast, and one for which the English people would not wish any officer to sacrifice the lives of his people or the safety of his ship.

It is only by very slow degrees and by continual steady perseverance that any reliable lines can be traced on the great blank tract which in Polar charts betrays the extent of our ignorance; and it would be as easy to fall into the mistake of undervaluing the achievements of our explorers as to err in the opposite extreme. It is true that the sledging parties of Nares and Stephenson have only laid down a few miles of coast, have corrected, within a limited area, some geographical errors committed by their predecessors, have exploded at least one theory to which some geographers fondly clung, have confirmed the results previously arrived at by other observers of Polar magnetic phenomena, and have made some interesting collections of Arctic fauna and flora. This is all.

But it is as much as they could reasonably be expected to do. The extent of exploration which can be accomplished by a single expedition can be but small when a mile a day is the utmost that the strenuous exertions of a party of picked men can achieve; and even that insignificant result is gained by toil so incredibly severe as to prostrate, in the space of a few days' journey, one party after another of the finest men in our navy with fatigue and disease.

It is, indeed, a matter for inquiry whether, as the Pole is approached, some climatic influences do not exist detrimental to health and life which are not in operation in lower latitudes. In M'Clure's expedition, more than three years occurred before the first death from scurvy took place. In Kane's expedition, two men only died in two years. The 'Enterprise' was four winters out; the 'Investigator,' five; the 'Assistance,' 'Resolute,' and 'North Star,' three each. In Sir John Ross's expedition, the 'Victory' was out three years, during which she was two years beset by ice in the Gulf of Boothia, and in all that time only made seven miles in advance. But in each of these instances it was not till the third year that despondency and its concomitant, scurvy, attacked them. Most of these were government expeditions; and in all, the general health of the crews was excellent. Indeed, Dr. Donnet, Deputy Inspector-General of Hospitals, who was surgeon on board the 'Assistance' in the Arctic expedition of 1850-51, declares that, of all the seas that are visited by ships of the British Navy, the Arctic is the most healthy. In the face of these facts, thus vouched by the most reliable authority, we have the startling result that one season was sufficient to break down the picked crews of the 'Alert' and the 'Discovery.'

Like noble fellows as they are, they would not have hesitated to remain if any good purpose could be served by doing so; but under the circumstances it was a matter of the commonest prudence to bring them home. It is due to Sir George Nares to say that he had no option in the matter. 'You should use your best endeavors to rejoin your consort in the navigable season of 1876, and, in company with her, return to England,

provided the spring exploration has been reasonably successful.' Such were the positive instructions given to him by the Admiralty on his departure; but that is not the present point. The question is whether the picked crews of the Arctic ships were physically fit to remain out a second year; and, in point of fact, they were not. It is true that they had a winter of unprecedented length; but neither that, nor the absence of certain precautions, of which we have heard a great deal in the newspapers, are enough to account for the break-down of so fine a body of men in so short a time, unless we suppose the climate to have been in some manner, not as yet explained, injurious to health.

But to our point. Why should any Arctic expedition be undertaken at all? It is not sufficient to say that England has always taken the lead in maritime adventure, and been the pioneer in many wild lands and dangerous seas. If that were all, we might leave Polar expeditions to private enterprise, which has always been sufficient to spur our countrymen on. Love of excitement has been quite inducement enough when danger was to be faced or honor to be won; but in this instance ships have been fitted out at the expense of the State, officered by the pick of our commanders, and the step met with the cordial approbation of the English people. It must be confessed, that fear of seeing our laurels wrested from us by the generous enthusiasm of our neighbors had at least something to do with the decision arrived at by the English Government. The Austrians had sent out a most adventurous expedition, which reached a very high latitude north-west of Novaya-Zemlya; but they were unable to follow up their good fortune. Germany had done good work in East Greenland. Sweden had sent an expedition to the north of Spitzbergen, which nearly attained to the same latitude reached by Parry six-and-thirty years before. The Americans, also, despatched a number of expeditions between the years 1859 and 1873; the last, under the brave but ill-fated Hall, attained, through Smith Sound, to the highest latitude ever reached by a ship till then, and even laid claim to establish positions in the direction of the Pole far

above the eighty-third parallel of latitude.

The partial success of these, turned the scale in favor of the equipment of an English expedition. The Government were already more than half inclined to the scheme, which had the support of the most distinguished Arctic explorers and men of science in England. The news of Hall's discoveries, with very inadequate means, finally determined them to proceed. Popular sentiment is a factor not to be despised in such matters, and the light in which the expedition was regarded by the Navy was shown by the fact that half the Navy List applied to be employed, and men volunteered in such crowds for the ships that the officers fortunate enough to be ultimately selected for the command were able to select the very flower of our sailors. But although the 'Alert' and 'Discovery' left our shores in the midst of a chorus of popular enthusiasm, the time of national excitement had been preceded by ten years of hesitation. The tragic fate of Franklin and his brave companions, and the hardships endured by successive parties sent to relieve him or find traces of his fate, for many years stayed the hand of those with whom rested the responsibility of ordering new expeditions. It was natural that, while that supreme tragedy was still fresh in the minds of men, they should remember rather the responsibility incurred than the glory to be won, and though many experienced officers who had taken part in the various relief expeditions were ready to venture again to the scenes of their former perils, the signal was still withheld.

It is a notable fact in the history of Arctic exploration that those who have once engaged in it seem to find a strange fascination in the pursuit. No one who has once ventured into the mysterious region can resist the longing that impels him to go there again; in vain the Ice King parades his terrors, in vain the dreary monotony of a five months' night casts its warning shadows over the path. An 'Old Arctic' is always ready to sally forth afresh in pursuit of the phantom Pole which has always eluded his pursuit. As regards the present expedition, it may be truly said that the time was ripe for a further attempt on the part of Eng-

land. Public opinion, both popular and scientific, was in favor of it; and it was generally felt that, unless our country was content to abandon the leading place she has always held in maritime discovery, it was time for her to bestir herself.

The conditions of Arctic exploration are vastly different now from what they were when Franklin and his gallant companions set forth. Steam has made it easy to advance under circumstances which would have stopped the ships of earlier mariners. Accumulated experience has mapped out practicable highways through wilds where in Franklin's time each step in advance was the result rather of fortunate experiment than of certain knowledge. Sledge travelling has been brought almost to a science, and the equipment of an Arctic ship is as well understood as that of an ordinary surveying vessel. It was said by those who were most active in promoting the expedition that the two great risks of former voyages, starvation and scurvy, might be absolutely eliminated from the list of probable casualties. Unfortunately in the case of the latter malady the assertion has not been fulfilled, but it is undoubtedly true that, when once a proper system of relief and communication between the ships was arranged, the contingency of death by hunger did not assume any formidable proportions.

The problems presented by science for solution, which an Arctic expedition might be reasonably expected to solve, are not very numerous or very important. They might set a few doubts at rest, and put a few theories to the test of actual experiment; but they were not likely to break ground in any field of knowledge hitherto unworked; and though our explorers have done good honest work in several ways, none, probably, would be more ready than themselves to acknowledge that the part of their duty which has been performed with the greatest satisfaction, has been that of planting the English flag several miles nearer the Pole than the foot of man has ever trod before. We may assign high-sounding reasons, and keep up our dignity about the matter, but the adventurers may be well assured that their pluck and daring, far more than

their scientific achievements, have gained for them the applause of their countrymen. The most valuable lesson they have taught us relates to the *morale* of our sailors; and without undervaluing, as the following pages will prove, their scientific achievements, we confess that the part of their stirring record on which we dwell with most satisfaction is that which describes the cheery good-humor kept up through the long night, when, for five long months, as in Byron's dream,

'Morn came, and went, and came, and brought no day.'

We read with such unmixed satisfaction of the truly heroic endurance exhibited by the sledge parties under Markham and Beaumont that we hardly care to inquire whether any minor objects of scientific interest have been left unattained. That which was really of most value was the strict discipline kept up under conditions which seem almost fitted to disintegrate society, and reduce those who are exposed to them to a mass of selfish human beings struggling each for himself. Experience shows that English sailors can endure such tests, but it is none the less important that we should be occasionally reminded that the old stuff is still available. We are too apt to look upon that instinct of discipline which characterises the English race as a mere matter of course; that it is not so may be seen by the records of the 'Polaris' expedition after the death of Hall. Let those who doubt either the reality of the danger to be feared or the just cause we have for national pride and thankfulness at the completeness with which it has been avoided, read the significant words of Mr. Robeson, Secretary of the American Navy, in his letter to the President of the United States: 'Experience has confirmed me,' he writes, 'in the conviction that there is little of either success or safety in any trying, distant, and dangerous expedition, which is not organised, prosecuted, and controlled under the sanctions of military discipline.' Mr. Robeson had before him as he wrote the recent fate of an expedition in which, after the leader's death, the subordination of the survivors broke down, and showed utter weakness in the essentials of discipline and cohe-

sion. Under infinitely greater hardships, our own men came out nobly.

When once the despatch of an expedition was resolved upon, the next consideration was to decide on the route which it was to pursue. On that point a great variety of information had gradually been amassed. A special committee appointed by the Royal Geographical Society were unanimous in favor of the route by Smith Sound. No less than five admirals, all of them distinguished in Arctic navigation, were members of this committee. Sir George Back, Collinson, Ommanney, Richards, Sir Leopold M'Clintock, and Sherard Osborn, sat upon it, as well as some distinguished non-professional persons. It is not a little curious that a society entirely unconnected with Government should be able to obtain the service of a body of men whose names add such weight to their expression of opinion on an extremely technical subject. They were, indeed, of high authority. Sir George Back was the Nestor of English explorers; he served in the first Arctic expedition of this century; he had himself explored a larger portion of the Arctic region than any other living man; and one of the finest exploits of recent times was his winter passed in the pack, and subsequent safely-accomplished return across the Atlantic with the sinking 'Terror.' Collinson and M'Clure both commanded exploring ships, and one made the North-West Passage. Ommanney, Osborn, and Richards, had all served in or commanded expeditions. M'Clintock, of all searchers, alone brought home authentic relics and records of Franklin.

The committee recommended the route by Smith Sound for three principal reasons: that of all the ways in which the Pole has been attacked it alone gives a certainty of exploring a previously unknown area of considerable extent; that it yields the best prospect of valuable discoveries in various branches of science, and that, from the continuity of the land from the eighty-second parallel, to the open sea, it promises reasonable security for the retreat of the crews, in case of disaster to the ships. These opinions were much fortified by the report of the crew of the 'Polaris,' who were the only persons acquainted with the upper waters of the sound. Admiral

Inglefield did not pass the entrance; Dr. Kane and Dr. Hayes wintered only a few miles inside of it; but the 'Polaris,' a mere river steamer, not by any means too well fitted for the work of Arctic exploration, was able, in one working season, to pass up the strait for a distance of 250 miles without any hindrance whatever to the highest latitude ever attained by a vessel. The committee laid great stress on the fact reported by the 'Polaris,' that there was navigable water still to the north of the highest point she reached. It now appears that this was a mistake, and that the sea to the shores of which this little vessel with its crew of twenty-five men was carried, is impassable. It will never be sailed by mortal keel till the distant day when Time shall turn his hour-glass once more and sweep away the paleocrystic ice into the limbo which already holds the relics of bygone glacial ages. The brave leader of that expedition lay down to die on the shores of the icy ocean. A monument, erected by British sailors, marks his grave. The survivors, deprived of his firm hand, and abandoned to distracted councils, found their way home through frightful difficulties; yet in doing so they unconsciously added another to the many reasons which already pointed out the road they pioneered as the best to follow. On their return voyage a large portion of the crew became detached from the ship and floated away helplessly on a great field of drift ice. For 187 days—from the 15th of October to the 21st of April—they remained on their dreary prison, and during that time were drifted by the current right down Davis Strait from the entrance of Whale Sound to the coast of Labrador. This added another proof to those which already existed of a southern current always setting from the Pole. In the same manner the ship 'Resolute' was driven from the north; so was the 'Fox' in the first year of M'Clintock's search for Franklin; so too was the ship 'Advance,' while on the opposite side of Greenland the German expedition of 1870, after the wreck of the 'Hansa,' drifted down from latitude of 72° to Cape Farewell. To these we may add the experience of Parry in his sledge journey from Spitzbergen northward across the Polar pack. The experience thus gained by so many concurrent ob-

servations went far to prove that those who advanced towards the Pole by way of Smith Sound need not be under the apprehension of being permanently beset, as had too often been the case with expeditions in other parts of the Polar regions.

For these reasons, the route by Smith Sound was ultimately selected. The Scientific Committee of the Geographical Society, aided by a similar committee appointed by the Royal Society, drew up a series of detailed remarks, which were afterwards embodied in official instructions to Sir George Nares, and gave the final shape to his plans and proceedings. Our readers are probably well-acquainted with their scheme, so far at least as it has been carried out by the actual proceedings of the expedition. It is sufficient to say, in general terms, that the committee recommended the equipment of two moderate-sized screw steamers, one to be stationed at a point within the entrance to Smith Sound, the other to advance as far as possible to the northward, preserving communication with the depot vessel. They proposed that sledge parties should start in the early spring, and explore the unknown region in various directions, while the scientific staff on board the respective ships would be able to prosecute researches both on shore and on the ice. They thought that in the improbable event of accidents, the expeditions could retreat to the Danish settlements in Greenland. The memorandum in which the Arctic Committee embodied their views of the advantages which would accrue to various branches of science by the renewal of Arctic exploration is, as might be expected from the eminence of the persons who composed it, of very great value. Not only did they collect within the space of a short memorandum a compendium of all the results they anticipated, but both the Royal Society and the Royal Geographical Society undertook a larger work. They appointed editorial committees to gather together all the scattered memoranda which could be gleaned from periodicals, or from books, respecting Arctic exploration. The Royal Society, in its publication, dealt with physical matters—astronomy, terrestrial magnetism, meteorology, zoology, and botany; while the Geographi-

cal Society's publication was devoted principally to geography, hydrography, and ethnology. In fact, a whole Arctic library, more comprehensive than has ever before been compressed into so small a compass, is to be found in these two valuable, though they can scarcely be called readable, volumes. The Admiralty selected two vessels—H.M.S. 'Alert' and the whaling-vessel 'Bloodhound,' which was forthwith bought into the Navy and renamed the 'Discovery.' The Hydrographer of the Admiralty was directed to furnish an estimate of the probable expenses. The purchase of two suitable vessels, their fitting and equipment, their stores, scientific gear, victualling, and coal, he set down for the first year at 56,000/. The total cost for two years and a half, including wages and salaries, he put down at 100,000/; adding that, should the expedition return in less than two years and a half, the expense would be proportionably diminished. The stores sent by the United States Government for the relief of the 'Polaris' were placed at the disposal of the English; the only condition being that, in the event of the stores being used, a proper inventory and appraisal should be made by order of the commander; and that, if the pendulum should be found in its *cache* at Lifeboat Cove, it should, after use by the British expedition, be returned, together with any other instruments, and such arms, implements, and books, as might be recovered, to the United States.

The expedition was ready for sea at the end of May 1875. The 'Alert,' 'Discovery,' and 'Valorous,' which latter vessel was to accompany them to Disco with stores, left Bantry Bay on the 2nd of June, and, after meeting heavy weather during the whole of that month, arrived at Upernivik on the 22nd of July. The Governor of North Greenland supplied them with dogs, and when they started from Upernivik the two ships had sixty of these animals on board.

Upernivik may be considered the furthest limit of well-explored and accurately known waters. Thenceforth their voyage was one of discovery as well as of adventure. Although the voyage up Smith Sound presented only the ordinary difficulties and dangers of Arctic navigation, both ships encountered their full

amount of exciting adventure. One such scene, mentioned by Sir George Nares, affords an illustration of the manner in which icebergs, floating with their bases deep down in under currents, sometimes crash their way through floe ice drifting in an exactly opposite direction under the influence of wind or surface current. On the night of the 5th of August both the ships were beset in the pack opposite Cape Albert, at the mouth of Hayes Sound. They were secured in the floe about a hundred yards apart, and found themselves drifting rapidly towards an iceberg. Both ships were at once prepared for a severe nip, with rudders and screws unshipped. 'At first the "Discovery" was apparently in the most dangerous position; but the floe in which they were sealed up, by wheeling round, while it relieved Captain Stephenson from any immediate apprehension, brought the "Alert" directly in the path of the advancing mass, which was steadily tearing its way through the intermediate surface ice. The "Alert" was saved in the nick of time by the splitting up of the floe.'

On the morning of the 25th of August, after fighting their way through the ice for many days with constant labor, they discovered a large and well-protected harbor inside an island immediately west of Cape Bellot, on the northern shore of Lady Franklin Sound. Finding that this harbor was suitable in every way for winter quarters, and the abundance of the spare Arctic vegetation in the neighborhood giving every promise of game being procurable, Sir George Nares determined to leave the 'Discovery' here for the winter, and to push forward with the 'Alert' alone. On the morning of the 1st September the 'Alert' passed up Robeson Strait, running before a strong gale nine knots and a half an hour. At noon, having carried Her Majesty's ship into latitude 82° 24' N., a higher latitude than any vessel had ever before attained, the ensign was hoisted at the peak. Sir George Nares was now fairly embarked on the Polar Ocean; but he at once found himself confronted with that stupendous ice which had stopped Collinson, McClure, Parry, Franklin, and, in fact, every voyager that ever embarked upon its waters. In another hour he was standing to the westward,

between the pack and the land, and before nightfall the 'Alert' had reached the extreme point of her journey.

Henceforth, whatever had to be done was to be done by the scientific men and sledging parties of the expedition.

The space into which the 'Alert' and 'Discovery' had so far forced their way is that which on an ordinary terrestrial globe is covered by the brass hour circle; on the actual earth it is absolutely unknown. Taking the Pole as the centre of this inhospitable waste, there are only three points in the surrounding circle where the foot of man has approached it within eight degrees or 480 geographical miles. These three points are in 60° longitude east from Greenwich, where the Austrians under Weyprecht and Payer made their remarkable discoveries; in longitude 20° E., where, as far back as 1827, Sir Edward Parry got up to latitude $82^{\circ} 40'$; and in longitude 60° W., where both the Americans under Hall and our latest expedition have fought their way within the magic circle. But this is the limit; no human foot has ever yet got up to the parallel of 84° . Following the circumference of the 80th parallel westward from the scene of Nares' researches, we find that it passes far to the north of the vast cluster of islands among which Sir John Franklin's expedition was lost. But neither there, nor to the north of Russian America, nor of Behring Strait, nor of the long coast-line of Siberia, do we know of any land that stretches upwards towards the Pole. A glance at the map will show that within the basin of the Polar Sea, there is no indication of anything like a continent, or even a large island, in the whole space between the Siberian and American shores and the Pole. At one time it was a favorite idea with geographical theorists that the space around the Pole was an open sea. Dr. Augustus Petermann, the German geographer, was indefatigable in his attempts to uphold this belief. It was only finally set at rest by Captain Markham's adventurous sledge journey in the spring of the present year. The Polar Sea, as far as we know it, is studded with islands; and, reasoning from analogy, there are grounds for the conclusion that the remaining, or unknown portion, is similar in character to that which has been al-

ready surveyed. One of the points which it was hoped the English expedition would decide was whether there was a water communication, on the north coast of Greenland, between the Atlantic and the Polar Sea, or whether, as some supposed, Greenland is part of a Polar continent. But though accumulating evidence points to the conclusion that it is an island, the matter still lies outside the limits of positive proof.

The whole of the Polar basin westward and northward of the Parry Islands appears to be occupied by a huge field of ice, different in character from anything found elsewhere in the Arctic regions. Sir Robert M'Clure traced it from Behring Strait to the north-west of Banks Land, round a great curve of more than a thousand miles. Sir George Nares found it to the north of Smith Sound, and gave it the distinctive name of paleocrystic ice. Admiral Sherard Osborn describes it as "a vast floating, glacier-like mass, surging to and fro in an enclosed area of the Arctic Sea." Admiral Osborn concludes that there must be land, or at least islands, between Spitzbergen and Behring Strait, because the paleocrystic ice never, even in the most furious gales, moves far away from the American shore. If there had been space for it to move north, he says, the furious south storms which sweep over the North American continent would blow it far in that direction, and bring its masses down into the Atlantic by way of Spitzbergen; whereas, as a matter of fact, it never goes more than a few miles off the American coast, leaving a narrow belt of water, and directly the gale abates, it surges back again, with its edge grounding in 12 fathoms of water.

The same phenomenon occurred along its eastern edge, where the great ice-field impinged on the archipelago at Banks Island; and Sir George Nares made a similar observation as regards the north shore of Grinnell Land, where the 'Alert' passed the winter. We quote isolated lines from a passage spread over two or three pages, remarking that the evidence thus given by Sir George is quite unconscious, as the passage under consideration relates primarily to the safety of his ship, and not to the nature of the ice. He says, 'On leaving Robeson Channel, immediately the land trends

to the westward, the coast-line loses its steep character, and the heavy ice is stranded at a distance of 100 to 200 yards from the shore, forming a fringe of detached masses of ice from 20 feet to upwards of 60 feet in height above water, and lying aground in from 8 to 12 fathoms.*

Sir George secured his ship inside this protecting barrier, and, two days later, during a squall from the south-west, 'the pack slowly retreated towards the north-east. . . . The gale continued all night, and drove the pack two miles off shore. . . . On the morning of the 2nd of September the wind suddenly shifted to north-west, bringing the pack rapidly in towards the land.'

These extracts strikingly confirm Sherard Osborn's description of the 'glacier-like mass surging to and fro in an enclosed area,' which we gave above.

The paleocrystic ice is of most tremendous character. Sir George Nares tells us that its motion is entirely different from that produced by the meeting of ordinary floes. 'In the latter case the broken edges of the two pieces of ice, each striving for the mastery, are readily upheaved, and continually fall over with a noisy crash. In the former, the enormous pressure, raising pieces frequently 30,000 tons in weight in comparative silence, displays itself with becoming solemnity and grandeur.' It may be imagined what obstacles such ice presents to the advance of loaded sledges; yet over it the advance of Captain Markham towards the Pole had to be made.

The geographical question whether Greenland is or is not an island, which was presented for solution to the exploring parties of Sir George Nares, is not one of idle or even of merely scientific curiosity. It is one which practically affects the lives and well-being of all inhabitants of the temperate regions of the earth. As it can be shown that our temperate climate depends upon the nature and direction of ocean currents, any alteration in these phenomena would produce most startling effects upon our well-being. The climate of Europe itself in no small degree depends upon the atmospheric condition of the Pole: the development there of extremely low temperature necessarily leads to correspond-

ing changes of pressure and other atmospheric disturbances, the effects of which are felt far into the temperate zone. To such an extent, indeed, is the temperature of the Equatorial regions lowered, and that of the temperate and Polar regions raised, by means of ocean currents, that, if these were to cease, and each latitude were to depend exclusively on the heat received directly from the sun, only a small portion of the globe would be habitable for the present order of human beings.

In the northern hemisphere two immense oceans extend from the Equator to the north, and between them lie two great continents, which contain by far the larger part of the inhabitants of the earth. Owing to the earth's spherical form, too much sun heat is received at the Equator, and too little in high latitudes, to make the earth a suitable habitation for the human race, unless there existed some compensating influence. The ocean alone can afford this compensation; it alone can convey heat in its bosom to distant shores. To the winds belongs the task of distributing it. They charge themselves with warmth and moisture by contact with the sea, and convey them in the form of mist and rain over the surface of the land. Upon this twofold arrangement depends the thermal condition of the earth.

There is a difference of about 80° between the mean temperature of the Equator and the Poles. The mean temperature of the Equator is about 80°, and that of the Pole a little more than 2° Fahrenheit. But, were each part of the globe's surface to depend only upon the direct heat which it receives from the sun, there ought to be a difference of more than 200°. The annual quantity of heat received at the Equator is to that received at the Pole as 12 to 5. It is the office of the ocean to reduce this great discrepancy within limits compatible with human existence. If no warm water were conveyed from the Equator to the Pole, the temperature of the Equator would rise, and that of the Pole would sink. Taking the temperature of stellar space as the standard of comparison, the Equator would be 135° above and the Pole 83° below zero of Fahrenheit.*

* The temperature of stellar space is 239°;

The Equator would therefore be 55° warmer than at present, and the Pole 83° colder, a condition of affairs under which, it is obvious, no human beings could live. Assuming for a moment that the warm water which produces this equalising effect is the Gulf Stream, it would follow that the stoppage of that stream would reduce the temperature of London to something very little higher than that which now exists at the Pole, and that about 40° represents the actual rise at London due to the influence of the Gulf Stream. If this be true, it is evident that to us in England the Gulf Stream makes all the difference between a moderate and an absolutely uninhabitable abode. But is it the Gulf Stream which passes into the Polar regions? Are the seas round Greenland and Spitzbergen heated by its warmth? A glance at the map will show that the Polar ice-sea, enormous in extent though it be, is landlocked, and communicates with the other oceans of the globe only through three openings, two of which hardly exceed the size of large rivers, while even the third is of no very great extent; these three openings are Behring Strait, Smith Sound, and the Greenland Sea. A strong current sets from the Pole to the southward through each of these channels. It is plain that the water of these currents is not composed of melting ice, for, if it were, the Pole would soon be free from obstruction. Whence then does it come? So large a quantity of cold water constantly flowing from the Polar regions into the Atlantic makes it certain that an equal mass flows in from south to north; and if we look at the map, it is hard to resist the conviction that this must be the Gulf Stream. Behring Strait, the only opening from the Polar region to the Pacific, is too shallow to admit of the passage of any considerable warm stream as under current. It is nowhere more than thirty fathoms in depth, and the greater part of that depth is occupied by a cold southerly current which runs through it from the Pole. But the possibility of the Gulf Stream finding its

way into the Polar Sea must depend on Greenland being an island. If, as Dr. Petermann, the German geographer, who bore the principal part in fitting out the last German expedition, still asserts, Greenland stretches away across the Pole in the direction of Behring Strait, some other theory must be devised to account for the known facts, and this is why it was hoped that Sir George Nares' expedition would have set this question at rest.

As soon as the ships were fairly frozen in, they began to prepare for the long winter. A few preliminary trials were made with the sledges, and some depots of provisions were placed in readiness for the spring operations, but the travelling parties were soon recalled, and all hands set to work to organise the routine of work and amusements which were to keep up the spirits and consequently the health of the men during 142 days of darkness.

It was during this time that the scientific officers devoted their attention to the work of their observatories. Those of the 'Alert' were a large and lofty series of snow-houses, connected together by a snow gallery. Here magnetic observations were taken, the general result of which is understood to confirm those of which the scientific world are already possessed; but as they are not yet published, we can only speak of them in very general terms. The same remark applies to the meteorological, astronomical, and polariscope observations, and to those made with the spectroscope and electrometer.

A similar observatory was constructed at Discovery Bay, and there the same scientific routine was pursued as in the northern ship. Captain Stephenson, moreover, had an opportunity which Nares had not, of making a series of very valuable tidal observations. On one point only was there any notable failure; and that was one to which we look with considerable regret, though it was caused by meteorological and other physical difficulties with which it was impossible to cope. It was found impossible to use the pendulum for determining the exact value of gravitation at the Pole, and the consequent perfecting of our knowledge of the shape of the earth. There are two reasons why the Pole

when therefore the proportion 12 to 5 between the Equator and the Pole is reached, the Equator will be 374° and the pole 136° above that of stellar space; that is, the Equator would be $+135^{\circ}$ Fahrenheit, and the Pole -83° .

should be selected as the scene of such experiments, viz., that there gravitation is at its maximum, and the counteracting centrifugal force at its minimum. Gravitation is greatest at the Pole because the Equatorial diameter of the earth is somewhat in excess of the Polar diameter, and the compressed portion of a spheroid attracts a body on its surface more powerfully than the more convex portion, being more compact in mass, and the active forces collectively nearer the surface. Centrifugal force is insensible, because, as one may easily see by whirling a weight at the end of a string, centrifugal force is proportionate to rapidity of rotation; and as there is no rotation whatever at the Poles of the earth, gravitation is there entirely unopposed by centrifugal force.

At the Equator the rotation is very rapid; and gravitation, violently opposed by centrifugal force, is at its minimum. It follows that gravitation increases from the Equator to the Pole in a certain definite proportion; a body which weighs 195 lbs. at the Equator weighs 194 lbs. at the Pole; this proportion finds mathematical expression in the statement, that the element of gravity, due to centrifugal force, varies everywhere as the square of the cosine of the latitude. Now, a pendulum swinging freely backwards and forwards is impelled by gravity alone, and as the time which a weight would take to fall through a space equal to the length of the pendulum bears a certain known proportion to its time of oscillation, we are enabled, by observing the rate of the oscillations of a pendulum of known length, to deduce from it what length of pendulum would in that place beat exact seconds, and consequently how far a body would fall in a second—in other words, the force of gravitation at that place.*

A pendulum which beats seconds in London is too slow at the Equator, and requires to be shortened. This is easy

to understand when we know that gravity decreases towards the Equator. Experiments have been made with the pendulum in all parts of the world. Sir Edward Sabine carried it from the Equator to Spitzbergen, and it was hoped that the present expedition would give us the results of observations taken at the Pole itself. All preparations were made for that purpose, but the severity of the climate proved too much for the clock-work. It was not till after several attempts that the idea was finally abandoned. Captain Stephenson writes in March 1876:—

'Commander Beaumont had everything ready for observations with the pendulum at the beginning of this month, being in hopes a milder temperature would have allowed the clock to go, but the very severe weather frustrated his expectations. This being the last month the clock can be rated by the transit of stars, having now perpetual daylight, he was prepared to make a great effort. It remains to be proved whether the observations can be carried out with sufficient accuracy by means of the sun alone. If this is not successful, the only other opportunity would be in the autumn, during the few days between the re-appearance of the stars and the advent of a temperature that would stop the clock, stars of the first magnitude being visible at night during the first week in October.*'

But it was not to be. The machinery of the clocks employed would not stand the severe cold; the oil froze in the works, and they would not go at all. It will easily be understood that observations on the length of a second must be conducted with minute accuracy to be of any value, and under the circumstances this was not attainable.

The collective indications of observations already made clearly show the general accuracy of the law deduced from theory as to the increase of gravity as the Pole is approached; but there are so many disturbing causes, owing to irregularities in the shape of the earth's surface that it is impossible to project from observations made in different parts of the earth such a curve as will harmonise them all. It is tolerably certain that the general result already arrived at will not be disturbed by any future operations. The earth is known to be a slightly oblate spheroid, and any correction of its form as now assumed will

* (1.) The oscillations of a pendulum in small arcs are all made in equal times.

(2.) The time of oscillation is proportionate to the length of the pendulum.

(3.) The time of oscillation is to the time in which a body would fall from a state of rest down the length of the pendulum as the periphery of a circle to its diameter.

* 'Report,' p. 9, sect. 110.

probably be very minute, and will be useful only in mathematical calculation of the highest refinement. We may therefore easily console ourselves for the failure of Commander Beaumont's attempt.

The sun re-appeared on the 1st of March, and the explorers were almost immediately on foot. By the end of the month all the pioneer expeditions had done their work, and on the 3rd of April the long journey sledges took their departure. Three weeks later, when Stephenson, after despatching his own parties, went up to the 'Alert,' to confer with Nares, none but a few officers, who had returned from pioneer sledging journeys, and some invalids, were left on board the ships. The northern division under Markham and Parr were off in the direction of the Pole; Aldrich was surveying Grinnell Land to the west; Rawson and Egerton were away laying a depot on the north shore of Greenland; Beaumont had started with heavier sledges in their track; surveying parties were away from the 'Discovery' laying down Lady Franklin Sound and Petermann Fiord; the naturalists, hunters, explorers, and photographers, were busy in their several avocations. Every one was taking advantage with feverish eagerness of the short interval of summer.

Nearly opposite to the spot where the 'Discovery' passed the winter were the winter quarters of the American exploring expedition, commanded by Hall in the year 1872. Polaris Bay, as it is called, lay just across Robeson Channel, and a considerable quantity of stores had been left there by the Americans, and were now at the disposal of Beaumont for his Greenland exploration. The 'Polaris' expedition had found that, in 1872, the ice broke up in Robeson Channel in the month of May. Beaumont was not to return till June 15; it was, therefore, necessary to provide some means for him to cross the strait in case he should arrive on its shores after the ice had begun to move. Captain Stephenson determined to have a boat conveyed across the ice to the 'Polaris' depot, there to await the return of the explorers, and a party started with that end in view. Captain Stephenson followed with light sledges, and overtook them at Hall's Rest.

The object of Captain Stephenson's personal presence on that occasion may be gathered from the following extract:—

'On the following day, the American flag being hoisted, a brass tablet prepared in England was erected at the foot of Captain Hall's grave with due solemnity. It bore the following inscription:—

'Sacred
to the Memory of
CAPTAIN C. F. HALL,
of the U. S. Ship "Polaris,"
who sacrificed his Life
in the advancement of Science,
on the 8th November, 1871.

'This Tablet has been erected by the British Polar expedition of 1875, who, following in his footsteps, have profited by his experience.'

Captain Hall, of the 'Polaris,' was a man of iron frame and great personal courage. He had prepared himself for the work before him by long residence among the Esquimaux. He learned their language and adopted their habits, in a way that might, perhaps, have been found impossible by a man of more delicate nurture. As his friend and biographer says, 'He learned to like the repulsive food the Esquimaux lived on; fasting, when it was scarce, with the *sang-froid* of one "to the manner born," and relishing the blubber, when it came, with the best of them.' He was stoutly and very powerfully built, and, according to the portraits we have seen of him, his features were as rugged as his heart was kindly. He had not the advantage of a liberal education, but he was, though not a seaman by profession, an expert navigator, and was remarkable for the neatness and precision of his astronomical observations. The main fault in his character, and, in fact, the one which at last endangered the safety of his expedition, is thus dealt with by no unfriendly hand:—

'The extent to which he was able to overlook the insolence and impertinence of those who owed him duty and allegiance is something marvellous to consider. Indeed, he carried this too far. Had he dealt more sternly with the beginnings of insubordination, we might have had a far different story to tell; but every other feeling and sentiment were swallowed up in the absorbing desire to get north.'

It is, indeed, impossible now to know what would have been the result if Hall had been able to impress his own strong hopes and belief on those who composed his expedition. Immediately after his

death they broke up into parties without union or cohesion, animated, as it would seem, by an overmastering desire to return home. Upon the details of the disintegration of the expedition, and the miserable accusations and recriminations which followed it, we have no intention of dwelling; the whole matter has been subjected to searching examination in America, and we only allude to it in order to record the deliberate opinion of the naval court which examined the survivors of the expedition. The worst accusation, and one which, it would seem, poor Hall himself believed in, was that he died by poison administered by his own people. This the court emphatically rejected as untrue.

While the sledging parties were away, Mr. Hart, naturalist of the 'Discovery,' found coal near the winter quarters of his ship. To our minds this is one of the most interesting results of the expedition. It opens out a whole range of speculations as to cosmical phenomena of the most primary importance. Coal is but the accumulated decay of a luxuriant vegetation, which demanded a long period of warmth and moisture, differing in the widest degree from the climatic condition of the Pole at the present time. It has been long known that the northern part of the Parry Islands abounded with carboniferous rocks, and coal has been found and worked to a considerable extent in Greenland, but now we know that it extends almost to the Pole itself. It is, therefore, no matter of conjecture, but of certainty, that a luxuriant vegetation and considerable heat existed where we now find only the accumulated ice of ages.

It is the generally received opinion both among geologists and botanists that the flora of the coal period does not indicate the existence of a tropical, but of a moist and equable, climate. Tree ferns range as far south as New Zealand, and araucanian pines occur in Norfolk Island. A great preponderance of ferns and lycopodiums, says Sir Charles Lyell, indicates moisture, equability of temperature, and freedom from frost, rather than intense heat. The atmosphere during the coal period probably resembled the climate which we endeavor artificially to represent in our hot-houses. But it is not sufficient for the production

of coal that there should be a climate suitable to the growth of a luxuriant vegetation. It is almost equally essential that immediately after the decay of such vegetation it should be preserved by being covered over by a thick deposit of sand, mud, or clay. For this end it was necessary that the area on which the plants grew should be submerged, and that in a cold rather than in a warm sea.

The generally admitted theory of coal formation is this, that the coal trees grew near broad estuaries and on immense plains but little elevated above the sea-level; that after the growth of many generations of trees the plain was submerged under the sea, and in process of time covered over with sand, gravel, and sediments carried down by the streams from the adjoining land; that the submerged plain afterwards became again elevated above the sea-level, and formed the site of a second forest which after the lapse of long centuries was again submerged. The alternate process of submergence and emergence went on till we have a succession of buried forests with immense stratified deposits between, which ultimately become converted into beds of coal.

Oscillation of the land, so often repeated, has been the wonder and despair of geologists; for any theory which pretended to account for the presence of coal—in Greenland, for instance, or at the Pole—was bound as a condition of success to account not only for alternations of climate in the icy region of the north, in itself a formidable problem, but for the oscillation of the land alternately below and above the sea-level as many times as there were thicknesses or seams in the coal, for evidently during the formation of each seam the land must have been alternately once submerged and once elevated. This, in fact, was one of the unsolved problems of geology; it was long suspected that its final solution must be referred to the astronomer, but unluckily the great masters of that science at the beginning of the present century darkened counsel by rejecting, on what now appears to be insufficient grounds, the explanation that lay ready to their hands. There are only two astronomical causes which could be supposed to materially affect the climate of the earth. One was a change in the ob-

liquity of the ecliptic, and the other a change in the earth's orbit. Laplace calculated the possible variation of obliquity of the ecliptic, and pronounced it so insignificant as to cause little effect on climate in general, and, *a fortiori*, to have had no effect whatever on the climate of the Pole. He also, after calculating the extreme limit of variation in the form of the earth's orbit, agreed with Herschel, Lagrange, and other celebrated men, that this must also be put aside. The question was thenceforth looked upon as settled; which was an error, for they decided, as lawyers are supposed to decide, not on the merits of the case, but on the case as submitted to them.

We lately showed in this 'Review' that physical causes now at work could have produced, and probably did produce, the alternate and repeated submersion and emergence of the earth. We will now try whether, by similar reasoning, it can be shown how alternate climates succeeded each other at the Pole. It is only necessary to deal with one Pole, for whatever happened at one Pole, the same phenomena would occur in each instance 10,000 or 12,000 years later at the other. There is a slight annual change in what is called the longitude of the perihelion; that is, the earth is not exactly in the same part of her journey round the sun, at the time of the equinox, in successive years. The consequence follows, that in process of time the equinoctial point travels right round the orbit. As the path of the earth is an ellipse, and not a circle, and the sun occupies one of the foci, the earth at any given season is never exactly the same distance from the sun two years running. The position of the earth at the equinox, or at the solstice, for example, would shift right round the orbit in 20,000 years; so that, whatever was the position of the earth in summer, say in the Year One, by the Year 10,000 the position of the earth in summer would have shifted half round the orbit, and would occupy the position which was occupied by it in winter in the Year One.

If the North Pole were subjected to any given combination of circumstances in the Year One, the South Pole would be subjected to similar conditions about 10,000 years later. If, therefore, we can discover any combination of circum-

stances which at a particular time would produce a condition of perpetual ice in the northern hemisphere, and perpetual summer in the southern, we may be sure that 10,000 years later there will be perpetual summer in the north and perpetual ice in the south. And this see-saw would continue until, in the course of ages, alteration of the degree of eccentricity of the earth's orbit would remove the inducing cause. Now, there was such a combination of circumstances; in fact there have been several such combinations. There was one about 240,000 years ago, and it lasted about 150,000 years. During the whole of that time the changes from warm to cold climate every 10,000 or 12,000 years must have been of the most extreme character. During that period the climate of the Pole probably changed from the extremity of heat to intensest cold, many times. During the cold periods, the weight of ice on the glaciated hemisphere would displace, were it but two or three hundred feet, the centre of gravity of the earth; the level of the ocean would change to accommodate itself to the new centre of gravity, and there would be a submergence of the land. By degrees, after thousands of years, the ice would begin to melt, and form on the other hemisphere. The sea would return to its former level, and there would be an emergence of the land. This is the simple explanation of that emergence and subsidence of the land, within comparatively moderate periods, which have appeared to geologists to demand for their accomplishment millions upon millions of ages.

But we have to show that a cause has actually existed which could produce, through many thousand years, perpetual ice in one hemisphere and contemporaneously perpetual summer in the other. Astronomers were perfectly right in saying that no change which is astronomically possible in the eccentricity of the earth's orbit could alone produce such a condition of things; but they omitted to take into consideration the fact, that, though change of eccentricity could not directly cause such a condition, it might bring into existence causes which, operating through long periods of time, would indirectly produce it.

The earth's orbit approaches, more or

less, nearly to a circle. The major axis never changes; but the minor axis varies so that, when the earth's orbit is at its highest eccentricity, the earth is roughly fourteen million miles further from the sun at aphelion than at perihelion. The earth moves more slowly at aphelion than it does when it is near the sun; and, therefore, if the northern winter occurred in aphelion, it would not only be fourteen millions of miles further from the sun than in summer, but, as it moved more slowly, its winter would be longer. The other hemisphere with its winter in perihelion would, at the same time, be nearer the sun in winter, and get its winter over more quickly.

Year by year the aphelion winter would get colder and colder; not enough to produce what is called glaciation; but enough to make a great and general lowering of temperature; then would come into operation certain causes affecting the direction of ocean currents, to complete the work which astronomical causes had begun.

A great deal of controversy has taken place respecting the physical cause of the circulation of ocean currents. Some have attributed it to differences of specific gravity between the Polar and Equatorial water; some to difference of thermal condition between the Equator and the Poles. But evidence, in our opinion almost irresistible, points to the conclusion that the ocean circulation is due to the winds. The globe may be said to have only one sea, just as the earth has only one atmosphere. We are so accustomed to think of the Atlantic and Pacific as separate oceans, and the currents of the ocean as independent of one another, that a confusion not unnaturally results from the idea that, supposing the currents to be due to the winds, their direction must follow the direction of the prevailing winds blowing over that particular sea. The currents are, however, only members of a grand system of circulation produced by the combined action of all the prevailing winds of the globe; and though it may happen that the general system of winds may in some places produce a current directly opposite to the direction of the winds blowing over that particular sea, in general terms it may be said that the direction of the main currents of the globe agrees

with the direction of the prevailing winds. For example, in the North Atlantic, the Gulf Stream bifurcates in Mid-Atlantic; so does the wind. The left branch of the stream passes north-eastward into the Arctic regions, and the right branch south-eastward by the Azores; so does the wind. The south-eastern branch of the stream, after passing the Canaries, re-enters the Equatorial current, and flows into the Gulf of Mexico; the same holds true of the wind. A like agreement exists in reference to all the leading currents of the ocean. This is particularly seen in the great Antarctic current, which, instead of turning to the left under the influence of the earth's rotation, turns to the right when it gets into the region of westerly winds between 40° and 50° south latitude. Mr. Croll goes so far as to say that 'all the principal currents of the globe are in fact moving in the exact direction in which they ought to move, assuming the winds to be the sole impelling cause. So perfect is the agreement between the two systems that, given the system of winds, and the conformation of sea and land, the system of oceanic circulation might be determined *a priori*.*'

Sir George Nares, in his address to the Royal Geographical Society, briefly but boldly expressed similar views. He said, 'The sea is the great distributor of heat. The two well-known trade winds, blowing across the warm tropical seas from the eastward, and, as they approach the Equator, gradually changing their course more to the northward and southward, till they may almost be said to meet, by the never ending pressure which they exert on the ocean surface, accumulate a head of water in front of any obstruction to their course, and this flows naturally away towards the point or points of least resistance.' That is the whole case; but it must be understood that the currents are not all on the surface. The surface currents follow the direction of the prevailing winds; the under-currents, by means of which equilibrium is restored, generally dive down beneath the surface current, and run in the opposite direction. Such is the case with the Gulf Stream, which passes under

* Croll, 'Climate and Time,' p. 214.

the Polar stream on the west of Spitzbergen, the latter passing in turn under the Gulf Stream beyond Bear Island. The Polar streams flow southward as surface currents as long as they remain under the influence of northerly winds. When they reach the region of south-westerly winds, they disappear under the warm waters of the Gulf Stream. And this for the simple reason that in each instance the stream, as Sir George Nares says, will take the line of least resistance. In the case of a stream going before the wind, this will be on the surface; when going against the wind, the line of least resistance will be some distance below it.

Now, we have seen how great an influence the ocean circulation exerts on the climate of the earth; we have also seen that the direction of ocean currents is determined by that of the prevailing winds. If, therefore, it should appear that astronomical causes affect the general direction of the winds, it will be evident that indirectly the same astronomical causes influence the climate of the earth. The trade winds are caused by a cold in-draught from the Poles continually rushing towards the Equator, there to replace the rarefied air, which, ascending, forms an upper current north and south. If the earth were quiescent, the lower current would, in both hemispheres, blow nearly north and south respectively; but the globe revolves on its axis from west to east; its velocity, nothing at the Poles, is about a thousand miles an hour at the Equator. In passing from high latitudes to the Equator, the cold currents of air arrive progressively at regions where the earth is revolving with more and more velocity. The air, flowing from the north and south, is unable to keep up with this continually increasing rate of rotation; it lags behind, and thus forms two currents, opposite in direction to the rotation of the earth. Thus, by the combined efforts of the rotation of the earth and the difference of temperature between the Poles and Equator, two permanent winds are formed, to which the names of the north-east and south-east trades are given. Whichever Pole is the coldest, or differs most in temperature from the Equator, has most disturbance of thermal equilibrium to adjust, and sends forth the strongest wind. At present, the south is the coldest Pole,

and the south-east trades deflect the Gulf Stream to the north. But suppose the reverse to be the case, and the northern winter at a period of high eccentricity to occur in aphelion: the northern winds, coming from what would then be the coldest Pole, would overpower the feebler winds of the south, and would blow far over the Equator to the southward, the warm Equatorial ocean current would be deflected, and would go to swell the Brazilian stream flowing to the south, Europe would soon sink to a temperature unfit for human life, and a glacial epoch would occur at the North Pole. At length, by the operation of the same causes, after thousands of weary years, the scene would begin to change. The precession of the equinoxes would cause the position of the earth in summer to shift; the northern lands would begin to emerge from the waters of the icy sea; the ice-floes to deposit their boulder on the lowlands; the winter to become less long and dreary; finally would come a complete reversal—the northern winter occurring at last in perihelion, the difference between its short mild winter and its long summer would almost cease to be appreciable; and while the other hemisphere was undergoing the greatest extremes of summer heat and winter cold, the northern would enjoy a climate like that of perpetual spring. Then, as in the former case, the action of the winds would begin, the south-east trades would again convey the heated Equatorial water to the Pole, and a climate suitable to the constitution of the coal plants would ensue.

It is by cosmical phenomena such as we have thus briefly, and necessarily most imperfectly, described—phenomena grand in their simplicity, and mighty in their action—that, in the opinion of our most trustworthy modern physicists, the alternations of climate at the Pole, and the formation of the Arctic coal measures, have been caused. But these views, though held by many able natural philosophers, have yet not been finally accepted by a portion of the scientific world. A short time ago a paper was read before a learned society, proving fully and ably that no appreciable displacement of the earth's axis of rotation could be due to any possible accumulation of ice at the Pole. So far good.

But in the discussion which followed, it seemed to be assumed that, if such were the case, there was an end of any possible explanation of the tropical flora proved to exist at the Pole. Some went so far as to suggest that, if the inclination of the Polar axis to the sun had not changed, the position of the Pole on the earth must have changed, because, as was said, a Polar night of five months implies a condition of things which must have been fatal to the life of the light-loving coal-trees, which could not live in the dark. This objection, however, is not considered a valid one by Dr. Hooker, the president of the Royal Society, who declares that the difficulty is much greater to his mind of conceiving plants enduring the excitement of an Arctic day than the torpor of an Arctic night. He adds, as an illustration of his view, that, when at St. Petersburg, he saw houses containing tropical plants—palms, ferns, and the like—covered over during the winter with mats, and these again with snow, till the plants were, for months together, in almost total darkness. The temperature was much lower than the normal requirements of such vegetation, and yet, to his surprise, when summer returned, the plants awoke as if it were from long sleep, and were splendid specimens of health and growth. The difficulty arising from the length of the Arctic night was therefore not very formidable. We cannot resist the pleasure of adding that Dr. Hooker, who will universally be allowed to be the first living authority on such subjects, expressed this opinion in conversation with the writer of these pages, and kindly accompanied his remarks with permission to quote them. It may be as well to add—though we hope we have already made our meaning clear—that the alternate emergence and submersion of the land of the Pole, due to the presence of the ice-cap, is not produced by altering the inclination of the axis of rotation of the earth, as a ship would be made to float lopsided by piling weights on one side of her deck. The ice operates by altering the position of the centre of gravity. In a billiard ball the centre of gravity is in the exact centre of the ball; melt a few drops of lead on to its surface, and the centre of gravity of the whole mass will shift in the direction of the lead.

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So on the earth: the weight of the ice will shift the centre of gravity a little in the direction of the glaciated Pole; the land is rigid and cannot move; but the particles of water will group themselves round the new centre, and consequently rise upon the land.

The sledging parties of the expedition started with high hopes and in the best spirits. They were the picked men of the Navy, and formed a command of which any officer might well be proud. But almost at a stroke all the fair appearance of things was changed. In one party after another the dreadful scourge of scurvy broke out, which used once to be the terror of our Navy, but had gradually come to be regarded as one of those preventible maladies which had been made matter of past history by modern appliances and science. We need not dwell much on the terrible theme; it has been matter of discussion in public and in private, and the facts of the case are not in dispute. The sledges started without the rations of lime-juice, which by some is said to be an absolute preventive, and the chief of the expedition has, with a chivalry and candor which do him honor, whether he has failed in judgment or not, declared that such was the fact, and that the omission was made by his orders and on his responsibility.

As soon as it was known that the land described in the American charts did not exist, it was a matter of foregone conclusion that Captain Markham should fail to reach the Pole. The route over which he had to travel had already been surveyed in the spring, and it was known that, as soon as the land was left, it would be impossible to make much head over the paleocrystic ice. But he did all that mortal man could do, and, to say the truth, all that he was meant to do, in planting the British flag in the highest latitude ever reached by man. We can now say to our friendly rivals, *C'est à vous, Messieurs*. It has taken nearly fifty years to beat Parry by twenty miles or so. We can rest on our oars now till another nation beats Markham and Parr. The heroism of the sledge crews was magnificent. Overworked, overtired, borne down by the weight of a dreadful and depressing malady, cold, hungry—for, in their state of sickness, it was impossible for them to eat the avail-

able rations—they struggled on; they had not even the excitement of hope, for they well knew that to reach the Pole was the wildest of dreams. As one man after another fell a victim to the dreadful malady, they put him on the sledges, and went on with the additional weight. It was not till they were utterly exhausted that they turned their faces towards the ship. When within thirty miles of it, they could get no further, and Commander Parr volunteered to go off alone into the dreadful desert on the chance of reaching the ship and bringing back assistance to the sufferers. He arrived unable to articulate from exhaustion. We need hardly say that the whole of the officers on board volunteered for the relief sledges, and within an hour were on the road. Of seventeen of the finest men of the Navy who composed the original party, but five were able to walk alongside. One was dead, and the remainder in the last extremity of illness.

The case of the Greenland explorers was even worse. Commander Beaumont quitted his ship, the 'Discovery,' on the 6th of April, and arrived at the 'Alert' on the 16th, whence he made his final start, and had hardly advanced more than a few miles before his party were attacked with the same blight as had prostrated the northern division. Even on his outward journey, man after man fell sick, and had to be carried on the sledges. The 20th of May, more than a month from the time of his departure, he was still fighting his way along the coast of North Greenland.

We give almost at random a few lines from his journal. They will show what kind of trial he and his men were enduring, and under what circumstances discipline was maintained.

'In the meantime the men had been struggling on as best they could, sometimes dragging the sledge on their hands and knees to relieve their aching legs, or hauling ahead with a long rope and standing pulls. . . . Nobody will ever believe what hard work this becomes, but this may give them some idea of it. When halted for lunch, two of the men crawled for two hundred yards on their hands and knees rather than walk unnecessarily through this awful snow. . . .'

And this was an advancing exploring party!

A few days later :—

'For two days previous they had been un-

able to change or even reach any of their foot gear, and now Paul was as bad; and for the remainder of the time each man, as he arrived at that stage of disease, had to be dressed and prepared for the day's journey every morning and put to bed in the evening.'

Still later :—

'Next march Dobing broke down altogether, and Jones felt so bad he did not think he could last much longer. Poor fellows! disappointment at the change of routes had much to do with it. This was our darkest day. We were forty miles off Polaris Bay at the very least, and only Gray and myself to drag the sledge and the sick. The thing did not seem possible. . . .'

'The work towards the end became excessively severe on account of the narrowness of the passes. The sledge had to be unloaded and the sick lowered separately in the sail. . . .'

'On the evening of the 24th we started for our last journey with the sledge, as I thought; for finding that Jones and Gray were scarcely able to pull, I had determined to reach the shore at the plain, pitch the tent, and walk over by myself to Polaris Bay, to see if there were anyone there to help us; if not, come back, and, sending Jones and Gray, who could still walk, to the depot, remain with the sick and get them on as best I could. But I thank God [it did] not come to this, for as we were plodding along the now water-sodden floe towards the shore, I saw what turned out to be a dog sledge and three men, and soon after had the pleasure of shaking hands with Lieutenant Rawson and Dr. Coppinger. Words cannot express the pleasure, relief, and gratitude, we all felt at this timely meeting. It did the sick men all the good in the world.'

To quote from the journal of Commander Aldrich, who led the western division, would be to repeat the same dreadful details. The party broke down, and were supported by the same pluck, and brought back alive—that is all one can say—by the help of God and the same determined courage. Surely nothing finer was ever recorded than this advance of three sledges, one to the north, another to the east, a third to the west, laden down with sick and dying men, in obedience to an order to do their best, each in their separate direction. And nothing more touching was ever penned than the narratives, full of tenderness and simplicity, in which the sailor writers tell their story.

It is the old story—too common in English annals—the organisation broke down, and individual heroism stepped in to save the honor of the day. But at what a cost!—*Quarterly Review*.

A NEW WORK ON RUSSIA.

BY JOHN MORLEY.

THE great squalid Empire that stretches from the Polar Sea to the southern border of the Caspian, and from Germany to China, has been described in a hundred works, has been the subject of countless articles, and is every day spoken of with the fluent readiness of entire ignorance in every newspaper in England; and yet it is safe to say that the book before us gives the English reader his first chance of learning some of the facts best worth knowing about Russia's social structure, her administrative system, her religious varieties, the daily life and movement of her peoples, and the forces and conditions that have brought them to their present stage in the march of civilisation. Mr. Mackenzie Wallace has brought to the study of social phenomena in Russia the same industry, patience, and power of scientific reflection that were brought by his eminent namesake to the study of birds and insects in the Malay Archipelago. In other words, he has taken a foreign country seriously. He went like any other traveller to spend a few months, but found the study so interesting that he remained there for six years. He condemned himself to a long period of exile in an obscure village in order to acquire a thorough conversational mastery of the very difficult language of the country. He thought nothing of devoting days to arranging and analysing the confused and intricate bundles of accounts of a great estate, in order to satisfy himself as to the exact effects of Emancipation on the fortunes of the proprietors. He worked as hard as a clerk in the office of the board of administration of a country district, so as to master the machinery of self-government. He spent months in the study of voluminous official documents to which he was fortunate enough to have access; and he passed from dreary archives to hardly less dreary life in the tents of wandering Bashkirs of the

Steppe, whose tents swarmed with vermin, and whose delicacies were great pieces of boiled fat thrust into the guest's mouth by the too hospitable fingers of his entertainers. In short, Mr. Wallace went to work upon Russia with the same kind of thoroughness and unsparing tenacity with which a good student would go to work to write a great history. To this admirable diligence he adds the gift of real insight into the working of sociological causes. The result is that he knows more about Russia, its social stratifications, the conditions of its growth, the framework of its organization, than most educated Englishmen know about the same matters in Great Britain.

Mr. Wallace makes no claim to any marked brilliance of style. His work is not literary, it is something much better than literary; and his descriptions derive an effectiveness of their own from the reality and the thoroughness of his knowledge. Nothing can be more graphic and excellent than his two chapters (xv., xv.) containing pictures of landed proprietors of the old school and proprietors of the modern school, and they are excellent, not because they are picturesque, but from their obvious realism. The abundance and variety of the types show that the author draws from a full well. The Village Priest is one of the most interesting of these types, not only from the vigor of Mr. Wallace's account, but because the evils which make the life and prospects of the Russian peasantry so unsatisfactory, are precisely those which we might look to a priesthood, with even such an instrument as the superstition of the Eastern Church, to do something to remove. Unluckily it appears that we shall look in vain. Many of the Russian priests are honest and well-meaning men; not fanatical, nor intolerant, nor puffed up with spiritual pride. Even here, however, we cannot help wondering whether Western Christianity would have obtained its hold on the barbarians, if every one of its great leaders had not been among the

* "Russia." By D. Mackenzie Wallace. New York: Henry Holt & Co.

most fanatical, ruthless, arrogant of mankind—

"Impiger, iracundus, inexorabilis, acer."

In times like our own, of amicable and refined sentiment, no type is more difficult to admire than the fierce and brutal fanatics who did most to establish Christian doctrine, but we cannot help seeing that if they had been less fierce and less fanatical, it might never have been established at all, and that therefore the Russian priest of the best stamp is as little likely to improve his flock, as is his brother of the worst stamp. What the worst stamp means, may be gathered from an account reproduced by Mr. Wallace from a private report of an orthodox Russian to the Grand Duke Constantine. "Why," asks this writer, "do the people not respect the clergy? Because it forms a class apart; because, having received a false kind of education, it does not introduce into the life of the people the teaching of the Spirit, but remains in the mere dead forms of outward ceremonial, at the same time despising these forms even to blasphemy; because the clergy itself continually presents examples of want of respect to religion, and transforms the service of God into a profitable trade. Can the people respect the clergy when they hear how one priest stole money from below the pillow of a dying man at the moment of confession, how another was publicly dragged out of a house of ill-fame, how a third christened a dog, how a fourth whilst officiating at the Easter service was dragged by the hair from the altar by the deacon? Is it possible for the people to respect priests who spend their time in the gin-shop, write fraudulent petitions, fight with the cross in their hands, and abuse each other in bad language at the altar? One might fill several pages with examples of this kind—in each instance naming the time and place—without overstepping the boundaries of the province of Nizhni-Novgorod. Is it possible for the people to respect the clergy when they see everywhere amongst them simony, carelessness in performing the religious rites, and disorder in administering the sacraments? Is it possible for the people to respect the clergy when they see that truth has disappeared from it, and that

the Consistories, guided in their decisions, not by rules, but by personal friendship and bribery, destroy in it the last remains of truthfulness? If we add to all this the false certificates which the clergy give to those who do not wish to partake of the Eucharist, the dues illegally extracted from the Old Ritualists, the conversion of the altar into a source of revenue, the giving of churches to priests' daughters as a dowry, and similar phenomena, the question as to whether the people can respect the clergy requires no answer."

This bears marks of the exaggeration of an enthusiastic standard; but the priest from whom Mr. Wallace learnt the language, admitted how little satisfactory was his condition, and how unable the priest is, from the nature of his circumstances, to acquire moral influence over his flock.

"'Perhaps,' said the priest, 'you have heard that the parish priests extort money from the peasants—refusing to perform the rites of baptism or burial until a considerable sum has been paid. It is only too true; but who is to blame? The priest must live and bring up his family, and you cannot imagine the humiliations to which he has to submit in order to gain a scanty pittance. I know it by experience. When I make the periodical visitation, I can see that the peasants grudge every handful of rye and every egg that they give me. I can overhear their sneers as I go away, and I know they have many sayings, such as—'The priest takes from the living and from the dead.' Many of them fasten their doors, pretending to be away from home, and do not even take the precaution of keeping silent till I am out of hearing.'

'You surprise me,' I said, in reply to the last part of this long tirade; 'I have always heard that the Russians are a very religious people—at least, the lower classes.'

'So they are; but the peasantry are poor and heavily taxed. They set great importance on the sacraments, and observe rigorously the fasts, which comprise nearly a half of the year, but they show very little respect for their priests, who are almost as poor as themselves.'

We only realize the sagacity of the great directors of the Roman church, above all of Hildebrand, after we have studied the degradation both of doctrine and ecclesiastical organization which marks the history of Eastern Christianity. There is no better way of bringing home to men's minds how much more the advantages conferred on civilisation by Christianity have been due to disci-

pline than to dogma. On the other hand, Mr. Wallace's description of the Molokani leads us to suppose that a purgation of the superstitious dogma, however much of superstition remains behind, may lead to a more austere morality and a more vigorous social supervision. Others of the Heretics whom he describes seem to go off into fantastic abominations, that are worse than anything to be found in Mr. Nordhoff's book on the Communistic societies of the United States. On the whole, Christianity in Russia is not a pleasing affair.

We have no space for Mr. Wallace's interesting pictures of the Artel,—the association of a number of artisans for the execution of a given piece of work,—of the rural doctor, of the manners and domestic ways of the peasantry. If De Tocqueville had lived to read these pages, he would hardly have said, as he said after reading Haxthausen, that not only would ennui make Russian society unendurable, but that one inhaled ennui merely in reading a description of it.* There is one rather interesting psychological question on which one would have been glad to hear anything that Mr. Wallace might have to say. The ordinary notion is that despotism breeds in those who are subject to it a great many harsh vices. How is it that the Russian peasant, the subject of a double despotism, patriarchal and imperial, the despotism of the Head of the House and that of the Head of the State, is yet a model of gentleness, cheerfulness, and docile resignation? Arthur Young notices at the conclusion of his travels in France that though he did not find the French either more polite, or more vivacious, or more talkative than the English, yet he did find them better tempered; and then he puts the general question, how it is that absolute governments seem favorable to good humor?

The singular society in the midst of which the author passed six years was not merely in his eyes a field for superficial observation and lively description: it was also the propounder of a series of

**Euv.*, vi., 245. He also said that the sight of Russian society, where all is so uniform, from ideas and laws down to the smallest details of external nature, affected him like America, minus its liberty and enlightenment—*une société démocratique à faire peur.*

problems, such as the better sort of historians now discern to constitute the true interest of all social study, whether its object lie in the past or the present. A hundred years ago, when the germs of a broader conception of human society had come fairly into existence with such books as the *Esprit des Lois*, the *Essai sur les Mœurs*, and the *Wealth of Nations*, the notion was still wanting that the two great controlling and transforming elements of society are religious ideas and economic forces. History or sociology was thought of by Montesquieu as something of which the centre was politics, constitutions, and varieties of government. Voltaire went further, and saw that the condition of society was the real matter of interest; but then he was too inclined to measure the condition of society by arts and letters, and he relied on anecdotes and gossip, only showing his superiority over others by being careful to get his anecdotes and his gossip from the most important people. It was a great gain, no doubt, to displace the dynastic by the democratic way of thinking about a nation; to put kings and battles below peoples and manners. But the democratic notion has in turn been overshadowed by another, which we may perhaps call the institutional. What engages the attention of the best kind of modern observer in any society, whether his access to it be direct or only indirect and through books, is not merely the surface of manners and daily usage, but the deeper causes of such things,—the institutions, the laws, the economic distribution and administration, and the relations between these decisive matters and the moral, religious, and social ideas that lie at the bottom of them all. It is scarcely too much to say that individual men or groups of men are thus of less interest than the great institutional forces, which wrap them about from the moment of their birth, and make them what they are down to the hour of their death. While the metaphysicians are splitting their straws about the Freedom of the Will, the student of man in society solves their problem by walking away from it, and proceeding to those spacious controlling influences of which the vaunted will is no more than the instrument and the tool. This is the point of view from which Mr. Mackenzie Wallace

went to work, and what he has done is one more proof of the fertility and value of the method in competent hands.

If a foreigner were to come to England as Mr. Wallace went to Russia, he would be well advised to begin his studies by mastering the position of the landed aristocracy. The control exercised by that great body over economic movements, over ecclesiastical policy, over legislation, and over manners, is one of the dominant and central facts in our social organisation. In Russia, on the contrary, a traveller is well advised who banishes from his mind the western notion of an aristocracy. One of the most interesting chapters in Mr. Wallace's book is that in which he describes the men whom for want of a better name he calls the Noblesse. Everybody knows the story of the Emperor's reply to Dumouriez, though most people set it down to Nicholas instead of to Paul I. Dumouriez had spoken of some Court personage as considerable. "Apprenez," said the Emperor angrily, "qu'il n'y a pas de considérable ici que la personne à laquelle je parle, et pendant le temps que je lui parle!" This illustrates the abject relation of the nobles to the autocrat. On the other hand they are without any of that exclusiveness in face of the bourgeoisie which marks German nobles, and some absurd families in England; and they have no haughty feeling of caste superiority over the lower orders.

"The Russian Noblesse," says Mr. Wallace in a pregnant passage, "was formed out of more numerous and heterogeneous materials, and these materials did not spontaneously combine to form an organic whole, but were crushed into a conglomerate mass by the weight of the autocratic power. It never became a semi-independent factor in the State. What rights and privileges it possesses it received from the Monarchy, and consequently it has no deep-rooted jealousy or hatred of the Imperial prerogative. On the other hand, it has never had to struggle with the other social classes, and therefore it harbors towards them no feelings of rivalry or hostility. If we hear a Russian noble speak with indignation of autocracy or with acrimony of the bourgeoisie, we may be sure that these feelings have their source, not in traditional mediæval conceptions, but in principles learned from the modern schools of social and political philosophy. The class to which he belongs has undergone so many transformations that it has no hoary traditions or deep-rooted prejudices, and always willingly adapts itself

to existing conditions. Indeed, it may be said in general that it looks more to the future than the past, and is ever ready to accept any new ideas that wear the badge of progress. Its freedom from traditions and prejudices makes it singularly susceptible of generous enthusiasm and capable of vigorous spasmodic action, but calm moral courage and tenacity of purpose are not among its prominent attributes. In a word, we find in it neither the peculiar virtues nor the peculiar vices which are engendered and fostered by an atmosphere of political liberty.

"However we may explain the fact, there is no doubt that the Russian Noblesse has little or nothing of what we call aristocratic feeling—little or nothing of that haughty, domineering, exclusive spirit which we are accustomed to associate with the word Aristocracy. We find plenty of Russians who are proud of their wealth, of their culture, or of their official position, but we scarcely ever find a Russian who is proud of his birth, or imagines that the fact of his having a long pedigree gives him any right to political privileges or social consideration. Such ideas appear to the ordinary Russian noble absurd and ridiculous. Hence there is a certain amount of truth in the oft-repeated saying that there is in reality no aristocracy in Russia.

"Certainly the Noblesse as a whole cannot be called an aristocracy. If the term is to be used at all, it must be applied to a group of families which cluster around the Court and form the highest ranks of the Noblesse. This social aristocracy contains many old families, but its real basis is official rank and general culture rather than pedigree or blood. Though it has no peculiar legal privileges, its actual position in the Administration and at Court gives its members great facilities for advancement in the public service. On the other hand, its semi-bureaucratic character, together with the law and custom of dividing landed property among the children at the death of their parents, deprives it of stability. New men force their way into it by official distinction, whilst many of the old families are compelled by poverty to retire from its ranks. The son of a small proprietor or even of a parish priest may rise to the highest offices of State, whilst the descendants of the half-mythical Rurik may descend to the rank of peasants. It is said that not long ago a certain Prince Krapotkin gained his living as a cabman in St. Petersburg!"

The absence of caste spirit and caste prejudice—Mr. Wallace illustrates this very strikingly in his account of the district administration in which nobles and peasants are members of the same Board and work together in unbroken amity—is due to a certain peculiarity in her historical development, namely that until lately she remained an almost exclusively agricultural Empire, with abundance of unoccupied land. "Her history pre-

sents, therefore, few of those conflicts which result from the variety of social conditions and the intensified struggle for existence. Certain social groups were, indeed, formed in the course of time, but they were never allowed to fight out their own battles. The irresistible autocratic power kept them always in check and fashioned them into whatever form it thought proper, defining minutely and carefully their obligations, their rights, their mutual relations, and their respective positions in the political organization. Hence we find in the history of Russia almost no trace of those class-hatreds which appear so conspicuously in the history of Western Europe."

We shall not attempt to follow Mr. Wallace into what some one has well called "the deep sea of agrarian history in Russia." His chapter on The Serfs is a most instructive account of the origin and working of Russian serfage. And it sheds a flood of light, not merely on what went on in Russia during the eighteenth century, but on the great social movement in the Roman Empire twelve or thirteen centuries before. We see the constancy with which economic causes work, and the uniformity with which fiscal exigencies, in an absolute and centralised political State, reproduce the course of social transformation. The reader of Mr. Wallace's chapter on Serfage will do well to turn from it to Mr. Finlay's explanation of the double origin of serfage under the old imperial administration.* With very slight changes of detail the process was substantially identical with that described by Mr. Wallace. The responsibility of the proprietors to the imperial fisc for the poll-tax was the decisive fact in each case; and it seems to us as if we might apply unaltered to Russia Finlay's words about the effect of this responsibility upon the common people: "Even when the land was cultivated by free peasants, the proprietor was responsible to the fisc for their capitation tax. As the interest of the government and of the proprietor, therefore, coincided to restrain the free laborer employed in agriculture from abandoning the cultivation of the land, he was attached to the soil, and grad-

ually sank into the condition of the serf; while, on the other hand, in the case of slaves employed in farming, the government had an interest in preventing the proprietors from withdrawing their labor from the cultivation of the soil; these slaves, therefore, rose to the rank of serfs."

The most important part of Mr. Wallace's book is that which treats of the next great event in the history of serfage—its abolition. His arrangement of his matter does not always seem quite satisfactory. The reader will probably have a more organic idea of the whole subject if, before beginning the chapters on serfage (xxix.—xxxii.), he turns back and reads over again the excellent chapters (viii.—ix.) treating of the Commune; chapters which give us a more vivid idea of what the Communal system is, than anything published in England before.

The Emancipation of the serfs in Russia may rank along with the abolition of slave labor in the United States and the extinction of the temporal power of the Popes, as one of the three great transformations of our time. In some respects the emancipation of the serfs is the most remarkable event of the three. Neither of the other two great changes is likely to generate a new social type; neither of them is more than negative, more than a removal of restrictions, though a removal of the most important kind for the western world. But the emancipation of the serfs in Russia has led at once to a condition of society and to a group of possibilities of the most interesting and unparalleled kind. It needs a moment of vigorous reflection for us to realize the existence of a nation now in such close relations with western forms of thought and institution, yet which has never passed through anything at all resembling our feudal stage, and which is entirely without anything at all corresponding to our proletarian class. Russia is so near western civilisation in some respects, and yet in the ideas that are fundamental assumptions with us as to property, she is as far from us as the wandering bands of Tacitus's Germania. Here more than anywhere else do we understand the force of Mr. Wallace's remark, that the student of the strange conglomeration of products which make up Russian civili-

* *Greece under the Romans* (B.C. 146 to A.D. 716), p. 183 and p. 241.

sation, is not seldom as much surprised as a naturalist would be, who should unexpectedly stumble upon antediluvian *Megatheria* grazing tranquilly in the same field with prize Southdowns.

Nearly thirty years ago Mr. Mill talked about a general reconsideration of all the first principles of society being felt to be inevitable. The miseries and iniquities of a state of much inequality of wealth are not less glaring in 1877 than they were in 1848, though men are for the moment less sanguine of inventing a panacea. The elections, however, to the new German parliament show that the socialist torch, whether it be for illumination or for conflagration, is still a light in Western Europe. The wisest statesman—unless he is over sixty—is he who keeps his mind most on the alert for new economic forms. The French showed Europe in 1792 how a political revolution could shake a continent while saving a realm. A great economic revolution would convulse the earth; and such a revolution is, sooner or later, a certainty, possibly even in our own tranquil, conservative, and unspeculative England.

The articulate classes in Russia—or at least one most important and enthusiastic school among them—had long been possessed by the idea that Individualism and unrestricted competition had now reached in the West a monstrous and perilous development. These principles must always lead to the impoverishment of the masses for the benefit of the few, and to the formation of a hungry Proletariate. "Let us," they argue, "avoid this evil. If the peasants be emancipated without land, or if those Communal institutions, which give to every man a share of the soil and secure this inestimable boon for the generations still unborn, be now abolished, a Proletariate will be rapidly formed, and the peasantry will become a disorganized mass of homeless wanderers like the English agricultural laborers. If, on the contrary, a fair share of land be granted to them, and if the Commune be made proprietor of the land ceded, the danger of a Proletariate is for ever removed, and Russia will thereby set an example to the civilised world! The Western nations have discovered their error when it is too late—when the peasantry have been already deprived of

their land, and the laboring classes of the towns have already fallen a prey to the insatiable cupidity of the capitalists. But Russia may avoid all these dangers, if she but act wisely and prudently in this great matter. The peasants are still in actual, if not legal, possession of the land, and there is as yet no Proletariate in the towns. All that is necessary, therefore, is to abolish the arbitrary authority of the proprietors without expropriating the peasants, and without disturbing the existing Communal institutions, which form the best barrier against pauperism."

This points to the considerations which make Russia so exceedingly interesting to the sociologist. The great problem for all western nations of Europe—and it is already becoming a problem even for the United States of America—is that of industrial organization. Some of us think that this will, in England at any rate, partially conform to the feudal type which it displaces; that the capitalist performs functions with which the workmen will never be able to dispense; that the immediate need of the time is the growth of vigorous combination among all kinds of laboring people, until capitalists come to be guided by those moral and social motives, for which a useful temporary substitute is found in the pressure put upon them by Trade Unions. But it would argue the infection of a doctrinaire spirit in its worst form, to insist that there can be no more than one wholesome and normal type for the industrial future of civilised countries. On the contrary, it would be very astonishing, and very opposite to what all social studies would have led us to expect, if Russia, whose political and social antecedents are so profoundly unlike those of England, France, Italy, Germany, and Spain, should in spite of that exhibit the same consequents in her later development. The circumstance of the Commune in Russia having survived in full vigor as the social unit, down to a time when the English economist comes upon no more than broken traces of it in other lands, makes it certain that Russia will move along a path of her own,—whether to higher social forms than our own or not, none of us will live to know.

Mr. Wallace gives a full account of the steps by which the great measure of

1861 was gradually shaped and finally consummated. It is not necessary for us to repeat his story. It is enough to enumerate the three fundamental principles of the Emancipation Law. These were:—

1. That the serfs should at once receive the civil rights of the free rural classes, and the authority of the proprietor be replaced by Communal self-government.
2. That the rural Communes should as far as possible retain the land they actually held, and should in return pay to the proprietor yearly dues in money or labor.
3. That the Government should by its credit assist the Communes to redeem these dues, or, in other words, to purchase the lands ceded to them in usufruct. With regard to the domestic serfs, they were to continue to serve their masters during two years, and thereafter to be free, but with no claim to a share of the land.

Thus, as Mr. Wallace puts it, "the serfs were not only liberated, but made possessors of land and put on the road to becoming Communal proprietors, and the old Communal institutions were preserved and developed. In answer to the question, who effected this gigantic reform? we may say that the chief merit undoubtedly belongs to the Emperor. Had he not possessed a very great amount of energy he would neither have raised the question nor allowed it to be raised by others, and had he not shown a decision and energy of which no one suspected him to be capable, the solution would have been indefinitely postponed. Among the members of his own family he found an able and energetic assistant in his brother, the Grand Duke Constantine—a man who would be remarkable in any sphere of life—and a warm sympathizer with the cause in the Grand Duchess Helena, a German Princess, thoroughly devoted to the welfare of her adopted country. But we must not overlook the important part played by the nobles. As soon as the question was raised, a large number of proprietors threw themselves enthusiastically into the work, and as soon as it became evident that emancipation was inevitable, all made a holocaust of their ancient rights, and demanded to be liberated at once from all relations with the serfs. And when the law was passed, it was the pro-

prietors who faithfully put it into execution. Lastly, we should remember that considerable merit is due to the peasantry for the patience and long-suffering which they displayed, as soon as they understood the law."

Hence it may fairly be said that the whole nation worked together, sovereign, proprietors, and common people alike. What has been the effect of this immense metamorphose of the relations between the peasantry and the proprietors, and of the peasantry to the land that they cultivate? As might have been expected, there are two contradictory answers, and Mr. Wallace is too careful an inquirer, and too keenly alive to the complexities of a great agrarian revolution, to admit that any terse and definite answer at all is yet possible. But although he does not sum up in any single formula either of enthusiasm or despondency, his account of the main features of the new position is definite enough. First, as to the consequences of emancipation to the landed proprietors. These proprietors may, like any other portion of the human race, be divided into the solvent, rational, and circumspect, on the one hand, and the insolvent, foolish, and improvident on the other. The latter class have no doubt good reason to deplore emancipation, but no sensible man will allow pity for a small number of individual cases to be the measure of his judgment upon so vast a matter as this: "So long as serfage with all its extremely elastic relations existed, many proprietors lived constantly in an atmosphere of debt, but contrived to keep their heads above water, like merchants who are thoroughly insolvent and prolong their commercial existence by means of accommodation bills and similar desperate expedients. Formerly they lived on their estates in comfort and plenty, or lived in the towns and drew a large revenue from their estates, and now all their landed property has been sold by auction to satisfy the demands of importunate creditors. For these men the emancipation, like a crisis in the commercial world, brought a day of reckoning. It did not really ruin them, but it showed them that they were ruined."

Let us turn to the proprietors who took their position seriously. How has

the emancipation of the serfs affected them? One good consequence it has certainly had. "Formerly," said a member of this class, "we kept no accounts and drank champagne; now we keep accounts and content ourselves with beer." Or, as Mr. Wallace expands this laconic summary, "the hereditary listlessness and apathy, the traditional habit of looking on the estate with its serfs as a kind of self-acting machine which must always spontaneously supply the owner with the means of living, the inveterate practice of spending all ready money, and of taking little heed for the morrow—all this, with much that resulted from it, was rudely swept away." Nobody of sense will be likely to deny that the substitution of orderly for disorderly habits of life and domestic administration must in the long run prove advantageous to the community, however irksome the process may be to an existing generation. The great question for every proprietor was what he should do with the land that remained in his possession. He had two courses. He could either farm the land on his own account, or he could let it to the peasants for a fixed yearly sum. The disadvantage of the latter course is that the peasants are bad cultivators, and exhaust the land recklessly. Strange as it may sound in Lincolnshire and Suffolk and Salisbury Square, such an animal as a farmer,—bound down by covenants, with no security of tenure, and liable to have his unexhausted improvements confiscated without recompense,—does not exist in Russia. A proprietor, then, who should adopt the other alternative and farm his land on his own account, might do so in one of the following ways.

1. He might release the Commune from their dues on account of the Communal land, in consideration of a definite amount of field-labor; an amount carefully settled in the Emancipation Law.
2. He might make an agreement with the Commune, or with individual peasants, according to which a certain definite amount of agricultural work should be executed for a fixed sum, or for a certain amount of pasturage or firewood. When this system is adopted, the peasants always use their own horses and agricultural implements, and the calculation is made, as we should say, *per acre*.
3. He might

agree to supply the land and the seed, the peasants doing all the work with their own horses and implements, the harvest being divided between the contracting parties either equally or in some other proportion previously agreed upon—one of the many variations of the *Métayer* system. 4. Or lastly the proprietor might replace the serf-labor of which the new law deprived him, by the western system of hired labor, letting the Commune attend to its own affairs, and seeking his labor wherever he could get it.

At first the proprietors contented themselves, as might have been anticipated, with a continuance of the old ways, under the new restrictions. But the laborers took the unfamiliar obligations of contract very loosely. Force of circumstances compelled the proprietors to resort to the other solutions. The transition was difficult, though not equally difficult in all parts of the country alike. In the Northern Zone, defined in Mr. Wallace's map, the soil is too exhausted to support a free labor system with a profit, unless costly improvements in culture were introduced, for which the proprietor had neither capital nor credit. In the Southern or Black-Earth Zone, on the contrary, the soil is fertile enough to give a good return even to poor farming. What has happened then is this. "In the Northern Zone the proprietors have nearly all given up farming, and let as much of their land as possible to the neighboring peasantry. The houses in which they formerly lived—many of them as *grands seigneurs*—are for the most part deserted and left exposed to the ravages of time, while the owners live in the towns, earning a livelihood in the public service, or in those numerous commercial and industrial undertakings which have sprung up in recent years with such marvellous rapidity. If a moralist were to make a sentimental journey through this part of the country, he would find abundant materials for edifying reflections on the instability of earthly greatness, and the folly of living carelessly from day to day without taking thought for the morrow. In the Southern Zone, on the contrary, the estates now present more activity than formerly. Nearly all the proprietors cultivate at least a part of their property,

and can easily let to the neighboring peasantry the land which they do not wish to farm on their own account. Some have adopted the system of *métayage*, others get the field-work done by the peasants at so much per acre, and a considerable number have succeeded in organizing farms with hired laborers on the West-European model. In some of the densely-populated districts the proprietors are in the habit of letting the whole of their land, and derive from this a large revenue. The Russian peasant likes the risk and chances of farming on his own account, and is ready to pay a high rent for land rather than work as a laborer."

In the southern section of the Black-Earth Zone, where the experiment of farming with hired labor is being tried in good earnest, the most serious difficulty lies in the scarcity of labor. For the preparation of the land and the sowing of the grain the ordinary population suffices; but for the harvest the services of the nomadic reapers are always required, and when the harvest is plentiful the price of labor rises to such an extent that the proprietor has sometimes reason to regret the exceptional bounty of nature. "I know at least of one case," says Mr. Wallace, "where an unusually abundant harvest ruined many farmers. This happened in the province of Samára in the year 1868. The harvest was so abundant that the reaping cost about twenty-five shillings per acre, and the grain was afterwards spoiled by continuous rains, so that the reaping expenses became a dead loss."

Many proprietors send agents to the north in early spring to hire reapers at a moderate price for the harvest time; but the laborers so hired fail to come at the stipulated time, and they decamp when it suits their convenience. People of a certain temperament, which is as familiar in other lands as it is in Russia, think the government might remedy this by a more complicated system of passports; but proprietors of a more active stamp seek a remedy of a surer kind in the introduction of reaping machines, and by sowing their wheat at two seasons. Meanwhile, the safest remedy of all is at work, for the population is rapidly increasing.

Hence in the South we may look for-

ward to seeing the proprietors successfully conducting the cultivation of their own land. In the northern agricultural zone, Mr. Wallace thinks it probable that the arable land will gradually pass into the hands of the peasantry, who can often extract from it a fair revenue, when the proprietor can only farm at a loss.

Next, we have to ask what the effect of emancipation has been upon the peasantry? "In truth," says Mr. Wallace, "it is no easy matter to sum up the two sides of the account and draw an accurate balance, except in those exceptional cases in which the proprietor flagrantly abused his authority. The present money-dues and taxes are often more burdensome than the labor-dues in the time of serfage. If the serfs had a great many ill-defined obligations to fulfil—such as the carting of the master's grain to market, the preparing of his firewood, the supplying him with eggs, chickens, home-made linen, and the like—they had, on the other hand, a good many ill-defined privileges. They grazed their cattle during a part of the year on the manor-land; they received firewood and occasionally logs for repairing their huts; sometimes the proprietor lent them or gave them a cow or a horse when they had been visited by the cattle-plague or the horse-stealer; and in times of famine they could look to their master for support. All this has now come to an end. Their burdens and their privileges have been swept away together, and been replaced by clearly-defined, unbending, unelastic legal relations. They have now to pay the market-price for every stick of fire-wood which they burn, for every log which they require for repairing their houses, and for every rood of land on which to graze their cattle. Nothing is now to be had gratis. The demand to pay is encountered at every step. If a cow dies or a horse is stolen, the owner can no longer go to the proprietor with the hope of receiving a present, or at least a loan without interest, but must, if he has no ready money, apply to the village usurer, who probably considers twenty or thirty per cent. as a by no means exorbitant rate of interest. Sometimes it even happens that the peasant has to pay without getting any return whatever, as, for instance, when his cattle stray into the proprietor's fields—an ac-

cident that may easily occur in a country where walls and hedges are almost unknown. Formerly, on such an occasion, he escaped with a scolding or with a light castigation, which was soon forgotten; but now he has to pay as a fine a sum which is for him considerable. Thinking of all this and of the other advantages and disadvantages of his new position, he has naturally much difficulty in coming to a general conclusion, and is perhaps quite sincere when, on being asked whether his new position is better than the old, he scratches the back of his head and replies, in a mystified, doubtful tone, 'How shall I say to you? It is both better and worse.'

Mr. Wallace when he comes to sum up his own conclusions admits much of what is said as to the profoundly unsatisfactory condition of the peasantry, and makes no attempt to deny their drunkenness and improvidence. But he sets these vices down, and we may well suppose that he does so with good reason, to the conditions of the serfage from which the people have just emerged. It would be wonderful if, considering the few years that the new system has been in operation, the habits engendered by the old system had already had time to die out. The parish clergy have as little influence in making the people sober, as if they were in a large English town. "If the orthodox church," says Mr. Wallace significantly, "could make the peasantry refrain from the inordinate use of strong drink as effectually as it makes them refrain during a great part of the year from the use of animal food, and if it could instil into their minds a few simple moral principles as successfully as it has inspired them with a belief in the efficacy of the sacraments, it would certainly confer on them an inestimable benefit. But this, is, for the present at least, not to be expected. The great majority of the parish clergy are men utterly unfit for such a task, and the few who have any aspirations in that direction rarely, if ever, acquire a perceptible moral influence over their parishioners."

Nor does Mr. Wallace deny that the Russian peasant is lazy and shiftless compared with the stout and tenacious laborer of the West; he only says, and it is just to remember it, that to one coming from the East the Russian peas-

ant seems a very industrious person indeed.

Nor again—to come to the pith of the matter—does Mr. Wallace deny the evils that are as yet incident to the system of peasant self-government which the Emancipation Law set up. Such evils are these. "The more laborious and well-to-do peasants do all in their power to escape election as office bearers, and leave the administration in the hands of the less respectable members. In the ordinary course of affairs there is little evidence of administration of any kind, and in cases of public disaster, such as a fire or a visitation of the cattle-plague, the authorities seem to be apathetic and powerless. Not unfrequently a Volost Elder trades with the money he collects as dues or taxes; and sometimes, when he becomes insolvent, the peasants have to pay their taxes and dues a second time. The Volost Court is very often accessible to the influence of *vodka* and other kinds of bribery, so that in many districts it has fallen into utter discredit, and the peasants say that any one who becomes a judge 'takes a sin on his soul.' The village assemblies, too, have become worse than they were in the days of serfage. At that time the heads of households—who, it must be remembered, have alone a voice in the decisions—were few in number, laborious, and well-to-do, and they kept the lazy, unruly members under strict control; now that the large families have been broken up, and almost every adult peasant is head of a household, the communal affairs are often decided by a noisy majority; and almost any communal decision may be obtained by 'treating the *Mir*'—that is by supplying a certain amount of *vodka*."

All this deserves to be borne in mind, as against those idyllic images which are not without their influence over even so careful and scientific a writer as M. de Laveleye.* But Mr. Wallace proceeds to point out that not a few of the most common complaints are due to the fact of people demanding from the present administration a great deal that no sort of administration could possibly effect. And he further adduces what he rightly

* *De la Propriété et de ses Formes Primitives.* Ch. ii. and iii.

calls a very significant circumstance to show the exaggeration of some of the complaints against the Village Assembly. "If," he says, "the lazy, worthless members of the Commune had really the direction of Communal affairs, we should find that in the Northern Agricultural Zone, where it is necessary to manure the soil, the periodical re-distributions of the Communal land would be very frequent; for in a new distribution the lazy peasant has a good chance of getting a well-manured lot in exchange for the lot which he has exhausted. Now, so far as my observations extend, I have found—much, I confess, to my astonishment—nothing of the kind. In all, or nearly all, of the Communes which I have visited throughout this part of the country I have found that no general re-distribution has taken place since the Emancipation." Again, the Russian peasant is shrewd enough, and like other shrewd persons he is sure to profit by experience. When they find, for instance, that the Volost Elder has not been paying into the Treasury the money collected as taxes and dues, and that they have in consequence to pay the taxes and dues a second time, they will insist in future on seeing the Treasury receipts.

Even, however, if the abuses incident to communal administration do in time disappear, many persons contend, with the economists of the West, that there is an inherent obstructiveness in the system of common ownership. Dr. Leon Faucher, for instance, who gave the English public a short account of the Russian land-system some years ago,* is of this opinion. The books tell us that the Commune prevents good cultivation according to the methods in use, and second, that it prevents permanent improvements and the passage to a higher kind of agriculture. We may notice in passing that our own artificial and detestable system is open to exactly the same objections; the farmer is tied down by a number of restrictive covenants, that prevent him—not only from using up the land, and carrying off the straw, etc.—but from distributing his

crops as he may judge best; and he is checked in permanent improvements by the knowledge that he may be turned out of his farm without compensation. This by way of illustration of the homely jingle, that—

"The faults of our neighbors with freedom
we blame,
But tax not ourselves though we practice
the same."*

Mr. Wallace's answer to the second of the two objections of *à priori* reasoners, is conclusive. "When the peasants," he says, "begin to think of permanent improvements, such as drainage, irrigation, and the like, they will find the Communal institutions a help rather than an obstruction; for such improvements, if undertaken at all, must be undertaken on a large scale, and the Mir is an already existing association. The only permanent improvements which can be for the present profitably undertaken consist in the reclaiming of waste land; and such improvements are already sometimes attempted. I know at least of one case in which a Commune has reclaimed a considerable tract of waste land by means of hired laborers. Nor does the Mir prevent in this respect individual initiative. In many Communes of the northern provinces it is a received principle of custom law that if any member reclaims waste land he is allowed to retain possession of it for a number of years proportionate to the amount of labor expended."

To the other of the two general objections, that the peasant, as co-proprietor, does not cultivate well according to existing lights, Mr. Wallace's reply is that the peasants put as much manure in their soil as they possess, and if they do not put enough, it is usually because he has not enough cattle. But it is the Commune, say its enemies, which keeps

* Another illustration is our fashion of objecting to the compulsory partition of property in France. Partition destroys the true family spirit, weakens paternal authority, periodically ruins industry, and the like. The English system does not limit paternal authority by compulsory partition, but by what usage has made tantamount to compulsory prevention of partition; its economic effects are still more injurious. French and English Liberals may well agree in the same cry for *droit de tester*.

* *Systems of Land Tenure*. Essays published by the Cobden Club. London: Macmillan. 1870.

the stock of cattle low; it gives the peasant reason to fear two things. In the first place, part of his cattle may be sold by the Imperial police for Communal arrears, though he may have paid his own share of the taxes and dues; and in the second place, the Commune may make a general re-distribution of the land, and give to others the plots or strips which he has carefully manured for several years. The former contingency, however, is the result of a bad fiscal system, and occurs in parts of the country where the Commune does not exist. The second apprehension appears to Mr. Wallace to have much less influence on the peasant than is supposed by theorists. It implies, for one thing, an absence of Communal good faith, which is an unproved assumption. In the next place it is contrary to fact. "In the southern provinces, where no manure is required, the periodical re-distributions take place almost every year; as we travel northward, we find the term lengthens; and in the Northern Agricultural Zone, where manure is indispensable, general re-distributions are almost unknown. In the province of Yaroslav, for example, the Communal land is generally divided into two parts; the manured land lying near the village, and the unmanured land lying beyond. The latter alone is subject to frequent re-distribution."

It is not necessary to labor these various points further. Readers who are specially interested in the matter will

pursue it in Mr. Wallace's careful pages. He is as far as possible from the vague enthusiasm of some Russians for the Commune; he even believes that some day the periodical re-distribution of land will disappear, though it is the case that hitherto very few Communes have used the privilege, which they all possess, of transferring invariably a lot to each family. But Mr. Wallace deprecates any legislative interference, hurrying or distorting the slow normal dissolution, if dissolution there must ultimately be, of what he emphatically describes as "the only institution which has genuine, spontaneous, independent life in it, and does not require to draw galvanic vitality from the central authority,—the only piece of real self-government which exists in the country. All the other organs of self-government in Russia are more or less artificial and ornamental, and the power which created them might at once demolish them without producing any serious perturbation; the Commune alone has deep roots in the traditions, the habits, and the everyday interests of the people."

Here we must leave this valuable and instructive book. It is one of the stoutest and most honest pieces of work produced in our time, and the man who has produced it may securely enjoy the reflection, which is by no means given to all of us, that even if he never does anything more, he will not have lived for nothing.—*Fortnightly Review*.

EDMUND KEAN.

BOTH the parentage and the date of the birth of Edmund Kean are doubtful. There is not only an uncertainty about the father, a by no means uncommon circumstance in this world, but, what is much more rare, there is a suspicion even concerning the mother. A Miss Tidswell, an actress, of whom we shall have occasion to speak immediately, has sometimes been accredited with bringing him into the world, and even Kean himself seems to have entertained this belief—"for why," he says, "did she take so much trouble over me?"—while to no less a personage than a Duke of Norfolk has been given the honor of his paterni-

ty. One day in the lobby of Drury Lane Theatre, Lord Essex openly accused his grace of the fact, and asked him why he did not acknowledge his son. The Duke protested his friend was mistaken, and added that if it were so he should be proud to own him. Edmund's reputed mother, however, was a strolling actress, named Nance Carey. Her father was a strolling player; her grandfather, Henry Carey, dramatist and song writer, and author of the sweet old lyric, 'Sally in our Alley,' was the natural son of the great Lord Halifax. Edmund's reputed father was one Kean, who is variously represented as a tailor

or a builder. Some say the child was born in Castle Street, Leicester Square, others in a miserable garret in Ewer Street, Southwark; and 1787-88-89 are variously assigned as the dates of that event.

We hear nothing about the father; whoever he might have been, he seems to have taken no heed of his son from the time the latter came into the world. Neither was the mother more natural in her conduct; she abandoned him to the care of the before-named Miss Tidswell, who seems to have been the only person who attended on her in her miserable confinement. At three years old he is said to have been a Cupid in one of the ballets at the Opera House. At five he was certainly one of the imps that John Kemble introduced into the witches' scenes in 'Macbeth.' But wild, mischievous propensities were early developed in the boy, and he and his companions playing some tricks in the cavern scene one night, which were not in their parts, were all dismissed.

After this he seems to have been sent to school in Orange Court, Leicester Square, and Miss Tidswell taught him to recite, fettering his erratic propensities by tying him up to a bed-post, and by occasionally severely, though kindly, correcting him. He was a weakly, sickly child, with bent legs and grown-out ankles, which necessitated the use of irons; these fortunately strengthened and straightened his limbs and saved him from deformity. And so passed his infant years.

By-and-by his mother, discovering, we suppose, that he might be of use to her, turned up again, after a long disappearance, claimed him, and took him away from his protectress. A more disreputable vagabond than Nance Carey it would be difficult to conceive; when strolling failed she tramped the country with perfumes and face powders, and such like commodities. Edmund carried the merchandise, and when the opportunity presented itself recited scenes and speeches from plays, as he had been taught by Miss Tidswell, at taverns and farms, and sometimes at gentlemen's houses, giving imitations of Garrick in 'Richard,' learned of course second hand, but said to be very good.

Among Miss Carey's customers was

Mr. Young, a surgeon, the father of the future great tragedian. And it is related in the life of the latter, how once after a dinner-party in that gentleman's house the young vagrant was had in to recite, while his mother waited in the hall, and how beside his father's chair stood a handsome boy of ten, named Charles. And so, strangely, at the beginning of their lives met the two men who were thereafter to be the great rivals of the London stage. Mr. Young recommended Nance's wares to a Mrs. Clarke of Guildford Street. Wherever she went she talked about the talents of her son, which brought her in far more money than her perfume bottles and pomatum, and her crafty eulogies soon excited the curiosity of Mrs. Clarke to see this prodigy. His first introduction to this lady is thus graphically described by Barry Cornwall in his 'Life of Kean.'

"The door was thrown open, and a pale slim boy of about ten years old entered, very poorly clad, ragged, with dirty hands, face unwashed, delicate skin, brilliant eyes, superb head of curled and matted hair, and a piece of hat in his hand. With the bow and air of a prince he delivers his message: 'My mother, madam, sends her duty, and begs you will be so good as to lend her a shilling to take her spangled, tiffany petticoat out of pawn, as she wants it to appear in at Richmond to-morrow.' 'Are you the little boy who can act so well?' inquires the lady. A bow of assent and a kindling cheek were the sole reply. 'What can you act?' 'Richard the Third, Speed the Plough, Hamlet, and Harlequin,' was the quick answer. 'I should like to see you act.' 'I should be proud to act to you.'"

And so it was arranged that he should give her a taste of his quality that evening. Several friends were invited to witness the performance. At a little after six there came—

"The same thundering rap which had preceded his advent in the morning. His face was now clean, the delicacy of his complexion was more obvious than before, and his beautiful hair had been combed, and shone like a raven's wing. His dress had indeed suffered no improvement, but a frilled handkerchief of his mother's was stuck inside his jacket, and was more than a substitute for a shirt collar."

The lady takes him away to her dressing room to make some improvement in his costume, puts him on a black riding-hat and feathers, which she turns up at one side with pins; a sword and belt are also found and buckled round his waist.

These appendages to his everyday rags certainly give the boy a somewhat comical appearance, and would excite the risibility of the guests but for the intense earnestness with which he dashes to the further end of the room which has been fixed upon for the stage, and where there are curtains and a door for exit, and before the people have time to laugh begins his recitation.

"It was no small task that lay before him," continues his biographer, "to face the smiles of an audience sceptical of his talents, and to conquer them. Yet he did this, nay, more; for the expression in the countenances of his audience changed from contempt or distrust into attention, from attention to admiration—to silent wonder—to tears."

A shower of sixpences and shillings rewarded his efforts, but he refused to pick them up, and they were with difficulty forced upon him. Such was the boy's pride when free from the baleful influence of his vagabond mother.

This acting led to important consequences: Mrs. Clarke, struck by the boy's talents and pitying his condition, prevailed upon her husband to allow her to take him under her protection. She placed him at school, had him taught riding, fencing, dancing, and treated him as though he had been her own child, and he in return continued to delight her and her friends by his recitations. This lasted nearly two years. One day a lady and gentleman and their daughters came on a visit to Guildford Street; it was arranged they were all to go to the theatre that night, and mention was made of young Edmund accompanying them. "What, does *he* sit in the box with us!" exclaimed the snob, whom we have called gentleman above. They were at dinner when these words were spoken; the boy, crimson with mortification, dashed down his knife and fork, rose from the table, left the room and the house, resolving never again to enter it. He walked to Bristol, and tried to get on board a ship as cabin-boy, but all the captains pronounced him too small. Then he trudged back to London, supporting himself on the way by reciting at public-houses. One morning he was found by a man who knew him, ragged and footsore, upon a dung-heap in a mews near Guildford Street, and was taken back to his former

home. But such an escapade could not be pardoned; some money being collected at a performance he gave, a sort of farewell benefit, the kind lady dismissed her unruly protégé, in whom were so strangely combined the pride of an aristocrat and the tastes of a gipsy.

After this he went back to the old life, now with his mother, now with Miss Tidswell, sometimes running away from the latter when chastised for his delinquencies. Once he was dragged home by a rope through the streets; at another time she bound a brass collar round his neck, as though he had been a dog of erratic habits; upon the collar was inscribed, "Theatre Royal, Drury Lane," at which establishment he was sometimes engaged in a small capacity. Then we find him, together with his mother, one of the company of Richardson's Show. His acting at Windsor Fair excited so much attention that King George sent for him to the Castle; his majesty was so highly pleased with his talents that he made him a present of two guineas. When in London he recited at various places of entertainment. A lady speaking to him one day, when he was the all famous actor of certain entertainments that used to be given in Leicester Place, remarked—

"'I used to be very much pleased with a person who spoke poetry at the Sans Souci.' 'Do you wish to know who it was that spouted poetry?' said Kean, turning head over heels in his drawing-room in Clarges Street, 'Know then 'twas I.'"

By-and-by he succeeded in eluding the vigilance of his guardians, and the sea-fever coming upon him again, he made another attempt to get on board a ship. This time he was more successful, and went as cabin-boy on a voyage to Madeira. A life on the ocean, however, was evidently not to his taste; one trip was sufficient, and upon his return to England he went back to strolling.

In 1804 Jerrold informs us that Kean joined his father's company at Sheerness; he still dressed as a boy and still retained his mother's name of Carey. He opened in George Barnwell and Harlequin. He played the whole round of tragedy, comedy, opera, farce, pantomime, and sang comic songs, and all for fifteen shillings a week! Not being of provident habits, and already giving way

to that dissipation which marked his whole life, such a stipend left little for times of enforced idleness. The want of the smallest coin frequently put him to terrible shifts. Once being at Rochester without a penny to pay the ferry toll, he, with his whole wardrobe tied up in a pocket handkerchief and slung round his neck, swam across the river. A few years afterwards, while proceeding to an engagement at Braintree in Essex, he found himself on the Kentish shore in the same impecunious condition. There was nothing for it but to swim across the Thames, which he accordingly did. He was to open that night in Rolla. All wet as he was, he set forward towards his destination, and arrived just in time, without being able to procure any refreshment, to get upon the stage. But exhausted nature gave way, he fainted in the middle of a scene. A fever and an ague were the results of that day's work.

He afterwards went to Belfast, where he had the honor of performing with Mrs. Siddons. The first part he played with her was Osmyn, in 'Zara'; but he was grossly imperfect, and intoxicated as well, and excited the great lady's supreme disgust. Yet the next night he more than redeemed himself, at least as an actor, by his performance of Young Norval. The star pronounced that he played "well, *very* well, but," she added with a lofty look; "it's a pity, there's too little of you to do anything." She little thought he was one day destined to snatch the sceptre from the Kemble grasp. In 1806 Miss Tidswell procured him an engagement at the Haymarket to play small parts—they were very small indeed, servants, alguazils, messengers—yet he worked hard to make the most of them. "Look at that little man," sneered an actor one night, "he is trying to make a part out of nothing!" But his restless ambition could not remain content in so subordinate a position, and the next year we find him back at Sheerness, playing everything for one guinea a week, which, however, was an advance of six shillings upon his former stipend. One night he was acting Alexander the Great, in Lee's tragedy, some officers in the stage-box annoyed him by laughing and calling out "Alexander the Little." At length, unable to endure this any

longer, he advanced with folded arms, and a look that appalled the sneerers, close to the box and said, "Yes, but with *a great soul!*" Jerrold, writing of his versatility and ingenuity, says, "all the models for the tricks of the pantomime of 'Mother Goose,' as played at Sheerness, were made by him out of matches, pins and paper."

At Gloucester, his next engagement, he met his future wife, Mary Chambers, a Waterford girl who had been a governess, and had then just entered the theatrical profession. Their first introduction did not at all promise such a catastrophe as matrimony. "Who is that shabby little man?" she enquired of the manager, as he stood at the wings. The piece they first played in together was 'Laugh When You Can.' The lady took the part of Mrs. Mortimer, Kean that of Sambo; he was very imperfect, and when they came off the stage, Miss Chambers, very angry and almost crying, objugated him with, "It is very shameful, sir, that you should not know a word of your part." Kean made no reply, but went to the manager and asked, "Who the devil is that?" Master Betty, the "Young Roscius," came to Gloucester, to "star," and Kean was cast Laertes to his Hamlet. On the day of performance he disappeared; for three days and three nights no tidings could be heard of him; men were sent out in all directions to seek him; he was found at last returning to the town. He went at once to the lodgings of Miss Chambers, to whom he was now engaged.

"Where *have* you been, Mr. Kean?" was her anxious query.

"In the fields, in the woods: I am starved; I have eaten nothing but turnips and cabbages since I have been out. But I'll go again to-morrow, and again and again, and as often as I see myself put in for such a character. I'll play second to no man save John Kemble."

He and Miss Chambers were united in 1808, and the same year they accepted an engagement at Birmingham at £1. 1s. each per week; this was afterwards increased ten shillings, in consideration of his acting harlequin. No contrast can be more striking than that between the past and present of theatrical salaries both in town and country; a leading actor in such a theatre as Birmingham

would now command six or eight pounds a week. While fulfilling this engagement he played with Stephen Kemble, the man who acted Falstaff without padding, and was told by him that he had played Hotspur as well as the great John, his brother.

It is a received opinion that Kean's acting was wholly spontaneous and unstudied; this is a mistake. A contemporary writing of this period says, "He used to mope about for hours, walking miles and miles alone with his hands in his pockets, thinking intensely on his characters. No one could get a word from him; he studied and slaved beyond any actor I ever knew." Neither did he relax his labors, when he had reached the highest pinnacle of fame. It is related of him, that when studying Maturin's 'Bertram,' he shut himself for two days to study the one line, "Bertram has kissed thy child!" It made one of these electric effects which from their vividness were supposed to be merely impulsive. Kean had great natural genius, but had he not bestowed upon it perfect cultivation, it would never have made him a great actor.

He seems never to have remained long in one engagement; his proud impetuous temper, which could endure neither reproach nor humiliation, and his irregular habits, brought about continual disagreements with his managers, and constant changes. Hence the miseries he endured; for even in those days of pitiful salaries the country actor, if provident, could contrive to live in respectability; but Kean suffered under a chronic destitution.

Birmingham did not long contain this erratic spirit; his next destination was Swansea. But ere he could leave the former town he had to borrow two pounds of his new manager to clear his liabilities, and then walk the journey with a wife within a few weeks of her confinement. Barry Cornwall gives a sad but striking picture of this journey.

"Kean, dressed in blue from head to foot, with his dark, sharp, resolute face, a black stock, and four swords over his shoulder suspending the family bundle of clothes, looked like a poor little navy lieutenant whom the wars had left on half-pay and penniless, trudging on with his wife to his native village."

They had started with only a few shil-

lings, and upon arriving at Bristol, found themselves penniless and obliged to write to Swansea for another loan, which, when it came, was nearly all swallowed up by the expenses they had incurred while waiting for it. A passage to Newport in a barge laden with hemp and tar followed; and thence to their destination on foot. Sometimes they encountered good Samaritans who would not take their money for the frugal meal they ordered; at others brutes who refused a drink of milk to the poor and footsore woman who scarcely knew an hour she might not be seized with premature pangs of maternity.

Not long enough, however, for the child to be born, did they remain at Swansea; that event took place at Waterford in September 1809. He was still under the same manager, Cherry, however. At Waterford he met the afterwards celebrated dramatist, Sheridan Knowles, then an obscure actor like himself, and for Kean was written his first play, never published, 'Leo the Gipsy,' in which he made a great success. Grattan gives the following description of his benefit performance in this town:—

"The play was Hannah More's tragedy of 'Percy,' in which he, of course, played the hero. Edwina was played by Mrs Kean, who was applauded to her heart's content. Kean was so popular, both as an actor, and from the excellent character he bore, that the audience thought less of the actress's demerits than of the husband's feelings; and besides this the *débütante* had many personal friends in her native city and among the gentry of the neighborhood, for she had been governess to the children of a lady of good fortune, who used all her influence at this benefit. After the tragedy Kean gave a specimen of tight-rope dancing, and another of sparring with a professional pugilist. He then played the leading part in a musical interlude, and finished with Chimpanzee, the monkey, in the melodramatic pantomime of 'La Pérouse,' and in this character he showed agility scarcely since surpassed by Mazurier and Gouffe, and touches of deep tragedy in the monkey's death scene, which made the audience shed tears."

He realised forty pounds by this benefit. But soon afterwards we find him strolling in the old misery, giving an entertainment at Dumfries to pay his lodging. One sixpenny auditor alone came. This appears to have been a time of awful misery to the young couple. Leaving Scotland they trudged on to York, and there so desperate was Kean that he

would have enlisted had not an officer dissuaded him. At York he met a kind friend in a Mrs. Nokes, the wife of a dancing-master, who hearing of their destitute condition brought them a five-pound note, and prevailed upon her husband to lend him the room in which he gave his lessons, for an entertainment. This entertainment consisted of scenes from plays, songs and imitations of London actors. Nine pounds were the receipts, and with this the poor strollers started for London. The journey was done partly on foot, partly in waggons, Kean, carrying the eldest boy much of the way. Soon after arriving in town he was engaged by Hughes of Sadler's Wells, who also had the Exeter Theatre, to go down to the old Western city to "play everything," for two pounds a week, the largest salary he had ever received. He and Hughes had acted together in Gloucester, where they announced a joint benefit; but the entire receipts of the house amounting to only eighteenpence they went hand in hand before the curtain and thanked and dismissed their patrons. Before leaving London he went to see Kemble in Wolsley. As soon as he got home he began to imitate him. "Shall I ever walk those boards?" he exclaimed. "*I will and make a hit.*"

The good people of Exeter appreciated his Harlequin more than his tragic heroes. His conduct here seems to have been very irregular. Once he absented himself from home for three days. To the question of where he had been, he replied grandiloquently, "I have been doing a noble action, I have been drinking these three days with a brother actor who is leaving Exeter, to keep up his spirits!" From Exeter he proceeded to Guernsey, where he became worse than ever. One night, from mere whim, he refused to act; the manager was obliged to go on and read the part; Kean walked into a private box, and, to add insult to injury, interrupted the performance repeatedly with cries of "Bravo, Hughes!" He returned to Exeter the next season. His benefit was patronised by a Mr. Buller, whose butler happened to say in his presence, "You will be sure to have a good house, as my master patronises the play." Kean's pride took fire, he vowed he would not sell a single ticket.

"If the people won't come and see my acting," he said, "it shan't be said they come by Mr. Buller's desire." His conduct disgusted all his friends, and soon he found himself forsaken by everybody.

Now came what seemed to be a stroke of luck, but which afterwards proved a disaster that once threatened to mar his fortunes. He had been in correspondence with Eliiston concerning an engagement at the new theatre in Drury Lane, now the Olympic; this he at last closed with for a salary of three pounds a week, but he could not get any definite time fixed for opening, and by-and-by Eliiston seemed inclined to depart from the stipulations of the agreement, and so the business remained uncertain. In the meantime, while Kean was at Teignmouth, Doctor Drury, once head-master of Harrow, saw him act on his benefit night. When Mrs. Drury came next day to pay for her box, she said how highly gratified both herself and husband had been with his performance, and, better still, that the Doctor would on the following day dine in company with Mr. Pascoe Greenfell, one of the committee of Drury Lane, and he would try to procure him an opening at that theatre. In due time arrived a letter requesting him to come up to London immediately. As usual he had no funds; all depended upon his benefit, and to obtain this he must play out his engagement. And so he had to journey from Teignmouth to Barnstaple, and thence to Dorchester, suffering all the tortures of hope deferred.

One night, in the autumn of the year 1814, while performing in the last-named town,

"The curtain drew up," to quote the actor's own words, "I saw a wretched house; a few people in the pit and gallery, and three persons in the boxes showed the quality of the attraction we possessed. In the stage-box, however, there was a gentleman who appeared to understand acting—he was very attentive to the performance. Seeing this, I was determined to play my best." [The part was Octavian in Colman's 'Mountaineers.'] "The strange man did not applaud, but his looks told me he was pleased. After the play I went to my dressing-room to change my dress for the savage (a pantomime character) so that I could hear every word that was said overhead. I heard the gentleman ask Lee, the manager, the name of the performer who played Octavian. 'Oh,' replied Lee, 'his name is Kean; a wonderful clever fellow.'

'He is certainly very clever, but he is very small,' said the gentleman. 'His mind is large, no matter for his height,' answered Lee. By this time I was dressed; I therefore mounted to the stage. The gentleman bowed to me and complimented me slightly upon my playing. 'Well,' he said, 'will you breakfast with me to-morrow? I shall be glad to have some conversation with you. My name is Arnold; I AM THE MANAGER OF DRURY LANE THEATRE.' I staggered as if I had been shot."

As soon as the performance was over and he could tear off his dress, he rushed home. Agitation would scarcely allow him to speak. "My fortune's made, my fortune's made," he gasped at last. Then he told the good news. But as he finished, his eyes fell upon his poor sickly first-born, then very ill. "Let but Howard live, and we shall be happy yet," he exclaimed hopefully. Alas, the proceeds of his benefit in that very town had to be devoted to the poor boy's burial.

The result of the appointment with Arnold was a three-years' engagement at Drury Lane, at eight, nine, and ten pounds per week. A few days afterwards died. "The joy I felt," he wrote to Arnold, "three days since at the flattering prospects of future prosperity is now obliterated by the unexpected loss of my child."

At last, on the sixth of November, he contrived to get to town. His salary was to commence at once, but when he went to the treasury, he encountered a sudden and unexpected rebuff. Elliston had put in his prior claim, and Arnold very angrily asserted that he had engaged himself under false pretences. Kean wrote a letter detailing every point of his transactions with the manager of the Wych Street theatre, in which he endeavored to show, that that gentleman had justly forfeited all claim to his services, by having been the first to violate the terms of agreement. We have not space to enter into the merits of the transaction; Elliston had evidently acted very shiftily towards the poor, unknown actor, taking advantage of his position, and Kean, upon the prospect of the better engagement opening to him, had done everything in his power to break the agreement. It may be said that neither party acted in strict honor. The new year came, and more than one actor had made his *début* at Drury Lane and failed. The fortunes of the theatre were in a

desperate condition, the expenses far exceeding the receipts, and inevitable bankruptcy was looming in the no distant future. At length the dispute between Elliston and Kean was adjusted by an actor named Bernard being handed over to the former as a substitute, the extra amount of his salary, two pounds a week, being deducted from Kean's. From the end of November to the end of the following January, Kean existed, heaven alone knows how, for the management of Drury Lane refused to pay him a shilling. All that he had ever suffered could not have equalled the misery of those two months of oscillation between hope and despair amidst hunger and wretchedness. Arnold now, as a *pis aller*, made up his mind to give him a trial. But the troubles were not yet over. Now rose a dispute as to the opening part; Arnold wanted Richard, but Kean knew the disadvantage his small figure would be at, when compared with the majestic Kemble, and answered, "Shylock or nothing." * There was marvellous resoluteness in this determination, considering all he had passed through, which was sufficient to crush the strongest spirit. But it succeeded, and the twenty-sixth of January, 1814, was decided for his appearance. One rehearsal only was vouchsafed him, and that was hurried and careless. The actors sneered at his figure, at his shabby coat with the capes, at his business, declared it would not do, and prophesied certain failure. He went home; "I must dine to-day," he said, and for the first time for many days indulged in the luxury of meat. Then all that he had to do was to wait as patiently as he could for the night. "My God!" he exclaimed, "if I succeed I shall go mad!" Terrible prophecy. Volumes could not better describe the agitation of his mind. As the church clocks were striking six he sallied forth from his lodgings in Cecil Street. His parting words to his wife were, "I wish I was going to be

* His desire, however, when he first came to town had been to open in Knowles' play of 'Leo the Gipsy,' which has been mentioned a page or two back. And he certainly would have used every effort to have done so, but, fortunately for him, the MS. was lost and no copy was extant.

shot!" In his hand he carried a small bundle, containing shoes, stockings, wig, and other trifles of costume. The night was very cold and foggy; there had been heavy snow, and a thaw had set in; the streets were almost impassable, with slush which penetrated through his worn boots and chilled him to the bone. He darted quickly through the stage door, wishing to escape all notice, and repaired to his dressing room. There the feelings of the actors were shocked by another innovation; he was actually going to play Shylock in a black wig instead of the traditional red one. They smiled among themselves, shrugged their shoulders, but made no remark; such a man was beyond remonstrance—besides, what did it matter? he would never be allowed to appear a second time. Jack Bannister and Oxberry were the only ones who offered him a friendly word. When the curtain rose the house was miserably bad, but by-and-by the overflow of Covent Garden, which was doing well at that time, began to drop in and make up a tolerable audience. His reception was encouraging. At his first words, "Three thousand ducats, well!" Dr. Drury, who was in front, pronounced him "safe." At "I will be assured I may," there was a burst of applause, and at the great speech ending with "And for these courtesies I'll lend you thus much monies," the sounds of approbation were very strong. Even as the curtain fell upon the first act success was almost ensured, and already the actors who had treated him so superciliously began to gather round with congratulations. But he shrank from them, and wandered about in the darkness at the back of the stage. The promise of the first act was well sustained in the second. But the great triumph was reserved for his scene with Salanio and Salarino in the third, where the flight of his daughter Jessica with a Christian is told him; there so terrible was his energy, so magnificent his acting that a whirlwind of applause shook the house. Then came the trial scene, grander still in its complex emotions and its larger scope for great powers, and all was so novel, so strange, so opposed to old traditions. When the curtain finally fell upon the wild enthusiasm of the audience, the stage manager who had snubbed him offered him oranges, Arnold,

who had bullied and "young man'd" him brought him negus.

Drunk with delight he rushed home and with half frenzied incoherency poured forth the story of his triumph. "The pit rose at me!" he cried. "Mary, you shall ride in your carriage yet!" "Charles," lifting the child from his bed, "shall go to Eton." Then his voice faltered, and he murmured, "If Howard had but lived to see it."

The 'Merchant of Venice' was played several nights in succession, and the receipts rose from one hundred to six hundred. His next part was Richard—the *second* part is always the touchstone of an actor's success; he here entered the lists with Cooke and Kemble, and memories of Garrick's splendid performance had not yet died out among old playgoers. In Shylock his small stature mattered little, but in Richard that disadvantage would be glaringly perceptible; he approached the part with fear and trembling. "I am so frightened," he said before the curtain rose, "that my acting will be almost dumb show to-night." But nevertheless he took both audience and critics by storm. Cooke, the great Richard of the day, was said to be left behind at an immeasurable distance; no such performance had been seen since the days of Garrick. Electricity itself was never more instantaneous in its operation. Such were a few of the eulogies showered upon him. But the terrible excitement he had undergone laid him up for a week. Actors now boast of playing this arduous part nearly a hundred successive nights; as *they* play it there is nothing wonderful in the feat, and then they have no inconvenient modesty to exhaust their energies. On the day of the second performance of this character, the doors were besieged soon after noon, and at night hundreds were unable to gain admission. He made Cibber's me'o-dramatic hero his own, but it died with him, for the wretched attempts of his successors cannot galvanise that desecration of Shakespeare into life again. The beauties of this performance are said to have been so marvellous that a glance, the pronouncing of such common phrases as "Good-night, my lords," brought down thunders of applause. His next character was Hamlet, which although full of

fine points, and the one, he said, to which he had devoted the deepest study, did not equal his previous successes. Othello and Iago, played alternately, were his next triumphs.

"In the tender scene of Othello," says Dr. Doran, "(where love for Desdemona was above all other passion, even when for love he jealously slew her), he had as much power over his 'bad voice,' as his adversaries called it, as John Kemble over his asthmatic cough, and attuned it to the tenderness to which he had to give expression. In the fiercer scenes he was unsurpassable, and in the great third act, none who remember him, will, I think, be prepared to allow that he ever had, or is likely to have, an equal."

His Iago was quite original; he entirely discarded the old conventional villain of the stage, and played him lightly and naturally.

When the season closed he had performed Shylock fifteen times, Richard twenty-five, Hamlet eight, Othello ten, Iago eight, and Luke ('Riches,' Massinger's 'City Madam' altered) four. Of those seventy nights the profits were £17,000. Previously there had been one hundred and thirty-nine nights of continuous loss. In the second season he played 'Macbeth,' another grand performance; Romeo, which was said to revive the glories of "silver-tongued Barry." But the triumph of this season was Zanga, in Young's 'Revenge.' As one, who stood among the crowd in the pit-passage, heard a shout and clamor of approbation within, he asked if Zanga had just previously said, "Then lose her!" for that phrase, when uttered by Kean in the country, used to make the walls shake; and he was answered that it was so. Southey and a friend went to see him in this play. When Zanga, having consummated his vengeance and uttered the words, "Know then, 'twas I!" raised his arms over the fainting Alonzo, his attitude, the expression of his features were so terrible, so appalling, that Southey exclaimed, "He looks like Michael Angelo's rebellious arch-angel!"—"He looks like the arch-fiend himself," said the other.

"But among all his new personations, Sir Giles Overreach," says Doran, whose opinion, as one who has seen Kean act, is invaluable; "stands pre-eminent for its perfectness from the first words, 'Still cloistered up,' to the last convulsive breath drawn by him in that famous *one* scene of the fifth act, in which, through his terrible intensity, he

once made so experienced an actress as Mrs. Glover faint away, not at all out of flattery, but from emotion. . . . In this last character all the qualities of Kean's voice came out to wonderful purpose, especially in the scene where Lovel asks him:

"Are you not moved with the sad imprecations
And curses of whole families, made wretched
By your sinister practices?"

To which Sir Giles replies:—

"Yes! as rocks are,
When foamy billows split themselves against
Their flinty ribs; or as the moon is mov'd
When wolves, with hunger pin'd, howl at her
brightness."

I seem still to hear the words and the voice as I pen this passage; now composed, now grand as the foamy billows; so flute-like on the word 'moon,' creating a scene with the sound, and anon sharp, harsh, fierce in the last line, with a look upward from those matchless eyes, that rendered the troop visible, and their howl perceptible to the ear; the whole serenity of the man, and the solidity of his temper, being less illustrated by the assurance in the succeeding words than by the exquisite music in the tone with which he uttered the word 'brightness.'

Maturin's 'Bertram,' a gloomy but powerful play, and Sir Edward Mortimer, in 'The Iron Chest,' may be added to his list of great triumphs.

He was now the lion of the day; all the greatest men of the time, poets, statesmen, nobles, crowded his dressing-room and invited him to be their guest. Lord Byron sent him presents and invited him to dinner. At the close of the Drury Lane season he went "starring" into the country. At Edinburgh he was paid one hundred guineas a night for six nights. Fortune poured down upon him her Danae showers, and we have pictures of young Charles playing with heaps of guineas, and bank-notes littering the room.

In succeeding seasons he appeared in many new parts, but made only one great success, King Lear. In 1820 he paid his first visit to America. Upon his return he appeared in a great variety of characters, tragic and comic, far too many for his fame, which began to be injured by such injudicious displays of versatility.

It is sad to turn from these records of splendid genius to those of the actor's private life. Success did drive him mad, for only a madman could have so trampled upon the glorious gifts of Fortune as he did; dissipation, in its worst form, frequently too obvious to the eyes of the

audience, marring his acting, and degrading him as a man, and a preference for low company, were rapidly preparing his downfall. He would quit the society of Lord Byron for that of pugilists! But probably this was more a manifestation of intense pride and sensitiveness than the result of preference. He was painfully conscious of the defects of his education* and of his ignorance of the manners of good society; to commit a solecism in good breeding was exquisite pain to him; thus the apprehension of doing so kept him in a state of extreme discomfort. Among his companions of the tavern he had no such fears, and was, besides, what he liked to be—a king. At length occurred that terrible scandal (in connection with the wife of a certain alderman) which blighted his whole future life and wrecked his home happiness for ever; the audience, that once hung so breathlessly upon his lips and hailed him with such shouts of acclamation, now howled and hissed and almost drove him from the stage. Dauntless as ever, he gave them scorn for scorn, insult for insult, as daringly as ever he did the poor yokels who offended him in his strolling days. But such a contest could not but terminate in his own discomfiture; his friends and patrons fell from him, his wife and child left him, the latter taking to the stage to support his mother. This last was perhaps the heaviest blow of all to Kean, who was bitterly opposed to Charles becoming an actor, and there was estrangement for years between father and son. They were reconciled only when the former was upon the brink of the grave. Deserted by friends and fortune, England was no longer a home for him, and so he paid his second visit to America.

"I shall not soon forget," to again quote the Doctor, "that January night of 1827, on which he reappeared at Drury Lane in Shylock. A rush so fearful, an audience so packed, and a reconciliation so complete,

* During his strolling days he bought a Latin dictionary and learned a number of words and phrases by heart, which he was very fond of quoting on every possible occasion, sometimes correctly, sometimes incorrectly. It was probably this love for and use of quotations which first gave rise to the assertion, repeated by some of his biographers, that he had been educated at Eton.

acting so faultless, and a dramatic enjoyment so exquisite, I never experienced. Nothing was heeded, indeed, the scenes were passed over until Shylock was to appear; and I have heard no such shout since as that which greeted him. Fire, strength, beauty, every quality of the actor seemed to have acquired fresh life. It was all deceptive, however. The actor was all but extinguished after this convulsive, but seemingly natural effect. He lay in bed at the Hummum's hotel all day, amusing himself melancholily with his Indian gewgaws, and trying to find a healthy tonic in cognac."

Grattan's description of his appearance soon afterwards in his play of 'Ben Nazir,' is a dark picture of failing powers. After describing his entrance, his splendid dress, and the thunders of applause that greeted him, he goes on to say:—

"He spoke, but what a speech! The one I wrote consisted of eight or nine lines; *his* was of two or three sentences, but not six consecutive words of the text. His look, his manner, his tone, were to me quite appalling; to any other observer they must have been incomprehensible. He stood fixed, drawled out his incoherent words, and gave the notion of a man who had been half hanged and then dragged through a horse-pond. . . . Kean went through it like a man in the last stage of exhaustion and decay. The act closed, a dead silence followed the fall of the curtain."

Yet still at times transient gleams of his old powers would burst forth with all the old electric fire, and audiences still crushed to suffocation to see him.

"To those," says Doran, "who saw him from the front, there was not a trace of weakening power in him. But oh, ye few who stood between the wings, where a chair was placed for him, do you not remember the saddening spectacle of that wrecked genius; a man in his very prime, with not merely the attributes of age about him, but with some of the infirmities of it, which are wont to try the heart of love itself. Have you forgotten that helpless, speechless, fainting mass bent up in that chair; or the very unsavory odor of the very brown, very hot, and very strong brandy and water, which alone kept alive the once noble Moor? Aye, and still noble Moor; for when his time came, he looked about as from a dream, and sighed, and painfully got to his feet, swayed like a column, an earthquake, and in not more time than is required in telling it, was before the audience, as strong and as intellectually beautiful as of old; but only happy in the applause which gave him a little breathing space, and saved him from falling dead upon the stage."

Still for another year or two he went on acting, trying to create new parts, but

memory and power failing him, and all the beauty of his face gone, although he was scarcely forty years of age.

On the 25th of March, 1833, came the end. That night was to celebrate the reconciliation between the father and son, and for the first and the last time they were to appear on the stage together, Charles playing Iago to his father's Othello. The event created a great excitement among playgoers; the house was crammed. Kean went through the part "dying as he went," until he came to the "Farewell," and the strangely-appropriate words "Othello's occupation's gone." Then he gasped for breath, and fell upon his son's shoulder, moaning, "I am dying—speak to them for me!" And so the curtain descended upon him—for ever. He was conveyed to Richmond. "Come home to me; forget and forgive!" he wrote to his wife. And she came. An hour before he died, he sprang out of bed, exclaiming, "A horse, a horse, my kingdom for a horse!" and he expired with the dying words of Octavian, "Farewell Flo—Floranthe!" on his lips. This was the 15th of May, 1833. He was buried in Richmond churchyard.

There is nothing in the theatrical annals of the whole world so romantic and pathetic as the life of this man. His sins were manifold, but his expiation was heavy. We have dwelt in this paper more particularly upon the events of his

early life, in order to soften harsh judgments upon his errors.

"Over the grave of one of the greatest of actors," says Doran nobly, "something may be said in extenuation of his faults. Such curse as there can be in a mother's indifference hung about him before his birth. A young Huron, of whose tribe he subsequently became a member, could not have lived a more savage, but certainly enjoyed a more comfortable and better tended, boyhood. Edmund Kean, from the very time of boyhood, had genius, industry, and ambition, but, with companionship enough to extinguish the first, lack of reward to dull the second, and repeated visitations of disappointment that might have warranted the exchange of high hopes for brutal despair; he nourished his genius, maintained his industry, and kept an undying ambition, under circumstances when to do so was a part of heroism. . . . Kean was trained upon blows and curses, and starvation, and the charity of strangers. It was enough to make all his temper convert to fury, and any idea of such a young, unnurtured savage ever becoming the inheritor of the mantle worn by the great actors of old, would have seemed a madness even to that mother who soon followed him in death, Nancy Carey. But Edmund Kean cherished the idea warm in his bosom, never ceased to qualify himself for the attempt, studied for it while he starved, and when about to make it, felt and said that success would drive him mad. I believe it did, but whether or not I can part from the great actor of my young days only with a tender respect. I do not forget the many hours of bright intellectual enjoyment for which I, in common with thousands, was indebted to him, and, in the contemplation of this actor's incomparable genius, I desire to forget the errors of the man."

Temple Bar.

GREAT STORMS.

GREAT storms may be compared to those waves on a perturbed sea which rise higher than their fellows, because representing in reality the combined mass of several waves. It is not probable that the causes producing storms vary from time to time in energy, except within very narrow limits. The sun is always pouring forth his heat with unvarying abundance, though as the earth draws slightly nearer to him, or passes slightly farther from him, in traversing her slightly eccentric orbit, she receives a greater or smaller proportion of the heat which he emits. And again, though hour by hour the face of the earth turned sunwards is changing, and though as the

year proceeds she now bows her northern, now her southern regions more fully towards him, yet it is not from changes such as these that great storms proceed. Such changes proceed too slowly and too uniformly to generate of themselves great atmospheric disturbances. It is in the accidental combination of irregular causes of atmospheric disturbance, not in regular variations in the action of the great source of all the atmospheric motions, that destructive hurricanes have their origin. And in this respect great storms may well be compared to those great waves which from time to time overtop their fellows on a storm-tossed sea. For such waves are not produced

by the action of fiercer blasts than have perturbed the sea around them. Every portion of that sea has been equally disturbed, or nearly so. But it is because in some cases wave-movements chance to be so associated with others that wave-crests coalesce with wave-crests, and hollows with hollows, producing greater disturbance, while in other cases the wave-crests of one set agree with the hollows of another, and *vice versa*, reducing the disturbance, that waves over the perturbed sea are unequal; and when it so chances that several waves coalesce into one, we have one of those mighty waves which seamen dread. A ship shall have stood for hours the full brunt of a storm, riding over the lesser waves, and reeling indeed before the larger, but rising again after they have passed, when an unlucky chance will bring a wave upon her in which the waters of many waves are gathered; and at one blow she will be disabled. So with the great storms which are remembered for many years. There has been a stormy season. The winds have now raged for awhile, and have anon lulled; but for weeks there has been no very terrible storm in any part of the wind-swept region; at length, however, it so chances that several storms combining into one within some limited area, a hurricane occurs which carries desolation in its track. Such was the storm which lately destroyed nearly a quarter of a million of lives in India, such the great storm of 1780. And there have been others as terrible, and only less destructive because their chief fury was spent in thinly-peopled regions.

We propose to consider some of the more remarkable storms recorded in the annals of meteorology, and then to inquire how far the evidence seems to suggest either the possibility of anticipating the approach of such great storms, or else of providing measures by which, when they occur in certain regions, their effects may be rendered less disastrous than they have been heretofore.

The most terrible storm which has, perhaps, ever occurred is that which has been called the Great Storm. It occurred, or rather its worst effects were experienced, on October 10, 1780. Generated probably in mid-Atlantic, not far from the equator, it was first felt in Bar-

badoes, where trees and houses were blown down. Captain Maury, in his "Physical Geography of the Sea," gives a rather exaggerated account of the effects produced by this storm in Barbadoes, apparently from memory—some of the details being *like*, but not quite the same as those actually recorded. He says "the bark was blown from the trees, and the fruits of the earth destroyed; the very bottom and depths of the sea were uprooted—forts and castles were washed away, and their great guns carried in the air like chaff." The bark of trees was removed, but, it is believed rather through the effects of electric action than by the power of the wind. Cannon, also, were driven along the batteries, and flung over into the fosse, but not "carried in the air like chaff." At Martinique the storm overtook a French transport fleet, and entirely destroyed it. There were forty vessels, conveying 4,000 soldiers, and the Governor of Martinique reported their fate to the French Government in three words—"The vessels disappeared." 9,000 persons perished at Martinique, and 1,000 at St. Pierre, where not a house was left standing. St. Domingo, St. Vincent, St. Eustache, and Porto Rico were next visited and devastated, while scarcely a single vessel near this part of the cyclone's track was afloat on October 11. At Port Royal the cathedral, seven churches, and 1,400 houses were blown down, and 1,600 sick and wounded persons were buried beneath the ruins of the hospital. At the Bermudas, fifty British ships were driven ashore, two line-of-battle ships went down at sea, and 22,000 persons perished.

Perhaps the most remarkable effects of the storm in this portion of its course were those experienced in the Leeward Isles. The hurricane drove a twelve-pounder cannon a distance of 400 feet. Those who lived in the Government Building took refuge in the central part, where circular walls, nearly a yard thick, seemed to afford promise of safety. But at half-past eleven, the wind had broken down parts of these walls, and lifted off the roof. Terrified they sought refuge in the cellarage, but before long the water had risen there to the height of more than a yard, and they were driven into the battery, where they placed them-

selves behind the heavier cannons, some of which were driven from their place by the force of the wind. When day broke the country looked as if it had been blasted by fire; not a leaf, scarce even a branch, remained upon the trees.

As in great floods a common terror preserves peace among animals which usually war upon each other, so during the Great Storm human passions were for the time quelled by the fiercer war of the elements. Among the ships destroyed at Martinique were two English war-ships. Twenty-five sailors who survived surrendered themselves prisoners to the Marquis of Bouillé, the Governor of the island. But he sent them to St. Lucie, writing to the English Governor of that island that "he was unwilling to retain as prisoners men who had fallen into his hands during a disaster from which so many had suffered."

The Great Storm of 1780 must not be confounded with the storm remembered for many years in Great Britain as the Great Storm. The latter occurred on November 26, 1703, and its worst effects were experienced not as usual in the tropics, but in Western Europe. The reader will remember Macaulay's reference to it in his Essay on the "Life and Writings of Addison." In his famous poem *The Campaign*, Addison had compared Marlborough to an angel guiding the whirlwind. "We must point out," writes Macaulay, "one circumstance which appears to have escaped all the critics. The extraordinary effect which this simile produced when it first appeared, and which to the following generation appeared inexplicable, is doubtless to be chiefly attributed to a line which most readers now regard as a feeble parenthesis,—

Such as, of late, o'er pale Britannia passed.

Addison spoke, not of a storm, but of the storm. The great tempest of November 1703, the only tempest which in our latitude has equalled the rage of a tropical hurricane, had left a dreadful recollection in the minds of all men. No other tempest was ever in this country the occasion of a parliamentary address or of a public fast. Whole fleets had been cast away. Large mansions had been blown down. One prelate had been buried beneath the ruins of his pal-

ace. London and Bristol had presented the appearance of cities just sacked. Hundreds of families were still in mourning. The prostrate trunks of large trees, and the ruins of houses, still attested, in all the southern counties, the fury of the blast." He strangely omits to mention one of the most striking events connected with this terrible storm—the destruction of the Eddystone Lighthouse. Winstanley, the architect of the first Eddystone Lighthouse, was confident that it could resist the fiercest storm which ever blew, and expressed a hope that he might be in it when such a storm raged. On November 26, he arrived with a party of men who were engaged to repair the building. The Great Storm soon after began to blow and raged throughout the night. On the morning of the 27th no trace of the Lighthouse was to be seen.

It is probable that the Great Storm of 1703 owed its destructiveness to the narrow range over which its track extended. As a storm widens in extent it loses in power, much as a river flows more sluggishly where its stream widens than where it has to make its way along a narrow channel. It is for this reason that certain regions suffer more from storms than others. Thus in the West Indies that great storm-breeder the Gulf Stream is at its narrowest. Here, therefore, the whirling storms, generated by the rush toward the channel of rare and warm air above the Gulf Stream, attain their greatest intensity, and have worked most terrible destruction. The Great Storm of 1780 affords an illustration, but many others might be cited. Flammarión relates that "at Guadaloupe, on July 25, 1825, solidly constructed houses were demolished, and a new building, belonging to the State, had one wing completely blown down. The wind had imparted such a rate of speed to the tiles that many of them penetrated through thick doors. A piece of deal 39 inches long, 10 inches wide, and nearly 1 inch thick, moved through the air so rapidly that it went right through a palm-tree 18 inches in diameter. A piece of wood about 18 inches wide, and 4 or 5 yards long, projected by the wind along a hard road, was driven a yard deep into the ground. A large iron railing in front of the Governor's palace was shattered to

pieces. A quantity of the *débris* from Guadaloupe was carried to Montserrat, over an arm of the sea 50 miles wide. Three twenty-four-pounders were blown from one end of a battery to the other. The vessels which were in the harbor of Basseterre disappeared, and one of the captains, who had escaped, said that his ship was lifted by the hurricane out of the sea, and was, so to speak, "shipwrecked in the air." The last-mentioned event is, however, "rather a large order," as our American cousins would say; probably that captain was too confused by the turmoil going on all round him when his ship was destroyed, to note with strict scientific accuracy what took place. Ships have been carried by the force of a gale upon the crest of a high roller, and have acquired such velocity that they have been flung some distance beyond the range reached by the wave itself. Thus in 1681 an Antigua vessel was carried out of the water to a point ten feet above the highest known tide. But nothing, we believe, has ever yet happened to a ship, even during the fiercest hurricane, which could properly be described in the words used by the Basseterre captain. His description probably bore the same relation to the facts as Maury's account of "great guns carried in the air like chaff." Probably when a storm really blows great guns in this way, it may lift ships out of the sea and shipwreck them in the air; but "in such a" *when* "we write a *never*."

The delta of the Ganges is another region where wind-storms acquire unusual intensity because of the way in which their range is narrowed. It seems probable that the whole of this delta forms a region of indraught, and the disposition of the land and mountain ranges helps to intensify the storms generated in the movement of air towards this region, especially in October and November, near the "changes of the monsoons." "During the interregnum," says Maury, "the fiends of the storm hold their terrific sway." Becalmed often for a day or two, seamen hear moaning sounds in the air forewarning them of the coming storm. Then suddenly the winds break loose from the forces which have for a while controlled them, and seem to rage with a fury that would "break up the fountains of the deep." In 1823 a

cyclone about a mile in diameter passed near Calcutta, during which 1,239 fishermen's houses were blown down. It serves to give some idea of the force of the wind to mention that a piece of bamboo was driven through a wall five feet in thickness. In other hurricanes in this region vessels have been carried from the sea far inland, not of course by being flung bodily out of the water, but carried along by the waters which have burst their usual bounds. Although this region has been the scene of many terrible catastrophes, none can be compared for a moment in destructiveness with the storm of October 31st last. "Those who remember," remarks a writer in the *Bombay Gazette*, "the cyclone which took place more than a dozen years ago will be able to recall vividly to their recollection the dreadful aspects which the storm presented. Houses were blown down, panes of glass were smashed by the atmospheric pressure, ships were lifted bodily out of the water" (again!) "and hurled upon the shore, where they were smashed. Many lives were lost and much property destroyed. But that cyclone was but a pleasant breeze compared with the disastrous storm-wave which has devastated the delta of the Ganges."

The region where the cyclone of last October worked most terrible destruction is the eastern part of the great Ganges delta, where the river Megna (formed by the confluence of the Ganges and the Brahmapootra) pours its waters into the Bay of Bengal. The volume of water carried down by this river is greater than is discharged by any other Asiatic river into the sea, a point which must be remembered in considering the circumstances of the late catastrophe. We have here an enormous estuary discharging nearly 150,000 cubic feet of water per second southwards, between the low-lying districts of Dacca on the west and Bulloah on the east. Farther on it reaches the archipelago of which the three chief islands are Dakhan Shabazpore, Hattiah, and Sundeep, in order eastwards. Opposite the first-named is the district of Backergunge (the Ganges flowing between); opposite the last-named is the district of Chittagong.

On the evening of October 31 nothing suggested danger. "The weather had

been a little windy, hazy, and hot; but there was nothing to excite the suspicions" of the inhabitants of the three islands and the districts surrounding the mouths of the Megna and the Ganges. To use the Lieutenant-Governor's words, "a million or thereabouts of souls retired to rest apprehending nothing." At about eleven o'clock the wind freshened, but not to a noteworthy degree, and "the sleepers slept on." Suddenly, at about midnight, a mighty wave, glittering in the starlight, was seen rushing in landwards, and in a few moments houses and lands were engulfed, and masses of human beings and *débris* were swept away on the top of the flood." We seem to be reading of one of those mighty waves which have been raised in mid ocean during the throes of some tremendous earthquake: but it was the wind which had driven before it this great mass of water. Driven onwards, it rushed into the estuary of the Megna, spreading over the surrounding shores and over the two eastern islands to a depth of several feet in many places. The worst was yet to come, however. The wave which had come in from the sea had been a long roller, and though it had contracted, increasing in height in so doing, as it rushed into the narrowing estuary, yet it was not until it had passed into the Megna that it acquired its full height. Pressed onwards by the cyclone, it gathered volume, until at length its weight overcame the pressure of the wind, when it swept back in one mighty and deep wave round the western channel, between Dakhan Shabazpore and Backergunge, inundating the island to a depth of twenty feet in many places, and spreading inland over Backergunge to a distance of from six to twelve miles from the shore. It had entered the estuary from the south-east, and now rushed outwards, almost dead against the wind, from the north-east.

A remarkable illustration of the terribly sudden nature of the disaster is afforded by the experience of Mr. Higgins, the Inspecting Postmaster at Noakolly. On the night of October 31st he was in his travelling barge, in a creek near Noakolly, about ten miles from the river Megna. "He had gone to bed at eleven without any fear or anxiety whatever. His boatman had gone on shore,

but four native servants were with him on board. Shortly before midnight he was awakened by a cry of 'The waters are up!' Jumping up, he looked out, and saw a high wave, with its crest and top gleaming in the starlight; it seemed like a flash; in an instant his boats were rising up on high; he fastened on a life-belt in a few moments; another wave came rolling on, and the barge capsized; he paddled about in the water all the rest of the night with the help of the life-belt; the native servants clung to spars. Three were saved and one was lost. The water felt warm to the body, but the air was bitterly cold to the head or hands above the surface."

The total destruction of life probably surpassed any which has been produced in the same space of time since the world was peopled. Sir Richard Temple, after a personal inspection of the afflicted districts, has come to the conclusion that not less than 215,000 persons lost their lives. He distributes the fatality as follows:—Backergunge, with the island of Dakhan Shabazpore, possessing a population of 437,000, has lost about a fourth of that number; Noakolly, with a population of 403,000, has lost 90,000; and Chittagong, with a population of 222,000, has lost 20,000. So that, out of a total population of 1,062,000 persons, more than one fifth have perished. To this terrible human mortality must be added a tremendous destruction of animal life, which, as Sir Richard Temple remarks, "though it may not be felt acutely at the present moment, will form a serious obstacle to agricultural operations by the survivors a few months hence." "Well may the Government of India," remarks the *Bombay Gazette*, "express the opinion that the calamity is scarcely paralleled in the annals of history. It will take many years before the afflicted districts will be able to recover from its effects, and it will be a landmark in the history of even this country of great calamities. The swiftness of the catastrophe must have been terrific, and one may almost gather from Sir Richard Temple's minute that the great waves literally flashed out over the land, and that simultaneously the vast destruction of life was completed. . . . When the sun rose next morning it shone upon a desolate country and a shivering

terror-stricken band of survivors, who were not yet able to realise what kind of calamity it was that had overwhelmed them so suddenly and mysteriously in the darkness. Many had been snatched from imminent death in wonderful ways; some had been able instinctively to catch hold of a friendly piece of wood floating past them, and many had been swept into trees, where they were held tightly by the thorns and the branches until the waters had subsided. Villagers were astonished with the appearance of the corpses of strangers in the midst of their villages, and it was not until the extent of the calamity became widely known that it was found there were few homesteads or villages that had not had dead bodies washed into them from a distance."

The cyclone is simply a whirlwind on a large scale. What we have said respecting the destructiveness of cyclones varying inversely with their range must not, of course, be understood as signifying that a large cyclone is necessarily less destructive than a small one, or a small cyclone less destructive than a whirlwind. We there referred to any the same cyclone. As a cyclone contracts it circles more swiftly, and becomes more destructive; as it expands, it loses power. But it is the contraction of a large cyclone which produces the most terrible effects. A cyclone which is small when first formed can only become destructive by contracting till it is yet smaller, and then, of course, the range of its destructive action is limited to a narrow track. Some cyclones have been so small that when they have so narrowed as to work mischief their track has been a mere lane compared with the broad highways of destruction traversed by their larger brethren. Such are the cyclonic storms generated in the valley of the Mississippi. A large river may be compared to an ocean current as a storm-breeder, but, being much narrower, the cyclonic storms generated by a river are much more limited in extent. "The track of these tornadoes," says Maury, "is called a 'windroad,' because they make an avenue through the woods straight along, and as clear of trees as if the old denizens of the forest had been cleared away with an axe. I have seen these trees, three or four feet in diame-

ter, torn up by the roots, and the top with its limbs lying next the hole whence the root came."

Fortunately, it happens not unfrequently that the chief fury of these whirlwinds is expended in the upper air. Indeed, very often, terrible storms are raging high in air, as can be seen by the behavior of the fleecy clouds, when it is calm or but a slight breeze is blowing at the surface. The upper parts of forest trees have been torn off while the lower branches have scarcely moved, and houses placed on a hill have been wrecked when others in a valley scarce a hundred feet lower have not suffered at all. Jameson thus describes the progress of a storm in the valley of the Ohio: "I heard a distant murmuring sound of an extraordinary nature. As I rose to my feet, and looked towards the south-west, I observed a yellowish oval spot, the appearance of which was quite new to me. Little time was left me for consideration, as the next moment a smart breeze began to agitate the taller trees. It increased to an unexpected degree, and already the smaller branches and twigs were seen falling in a slanting direction towards the ground. Two minutes had scarcely elapsed when the whole forest before me was in fearful motion. Turning instinctively toward the direction from which the wind blew, I saw, to my great astonishment, that the noblest trees of the forest bent their lofty heads for awhile, and, unable to stand against the blast, were falling into pieces. First, the branches were broken off with a crackling noise, then went the upper parts of the massy trunks, and in many places whole trees of gigantic size were falling entire to the ground. So rapid was the progress of the storm that, before I could think of taking measures to insure my safety, the hurricane was passing opposite the place where I stood. Never can I forget the scene which at that moment presented itself. The tops of the trees were seen moving, in the strangest manner, in the central current of the tempest, which carried along with it a mingled mass of twigs and foliage that completely obscured the view. Some of the largest trees were seen bending and writhing under the gale, others suddenly snapped across, and many, after a momentary resistance, fell uprooted to the earth. The

mass of twigs, branches, foliage, and dust that moved through the air, was whirling onward like a cloud of feathers, and, on passing, disclosed a wide space filled with broken trees, naked stumps, and heaps of shapeless ruins, which marked the path of the tempest. This space was about one fourth of a mile in breadth, and to my imagination resembled the dried-up bed of the Mississippi, with its thousands of snags and sawyers strewed in the sand and inclined in various degrees. The horrible noise resembled that of the great cataracts of Niagara, and as it howled along in the track of the desolating tempest produced a feeling in my mind which it were impossible to describe. The principal force of the hurricane was now over, although millions of twigs and small branches that had been brought from a great distance were seen following the blast as if drawn onwards by some mysterious power. They even floated in the air for some hours after." . . . After crossing the track of the storm to his own house, which stood close by, he found to his surprise "that there had been little wind in the neighborhood, although in the streets and gardens many twigs and branches had fallen in a manner which excited great surprise."

When whirlwinds such as these occur in more thickly-peopled regions, effects as terrible as those produced by a cyclone are sometimes experienced. Thus on the 19th of August, 1845, a whirlwind occurred in the department of Seine Inférieure, which is remembered to this day in Normandy as if it had happened but yesterday. The barometer fell suddenly more than two inches. Very soon after it was observed that along a certain track the sea at Havre was disturbed by a tempest, while outside the track the sea was relatively calm. The whirlwind soon reached the land. The large mill at Monville, in a valley near the railway between Dieppe and Rouen, was suddenly blown down. It fell as if a hundred batteries had discharged their fire at once upon it. Hundreds of factory women were buried beneath the ruins. The few who escaped could not understand that in the midst of calm a hurricane had suddenly arisen. They believed for awhile that the end of the world had arrived. Men were hurled

over hedges; others were cut to pieces by the machinery which had been whirled about in the air; others, without being actually hurt, were so terrified that they died from the effects of the fright, in the course of a few days. Whole rooms and walls were turned upside down, so as to be no longer recognisable. At other points the buildings were literally pulverised, and their site swept clean. Planks, measuring a yard long, five inches wide, and nearly half an inch thick, archives and papers, were carried to distances of 15 to 25 miles. Trees situated in the track of the storm were blown down and dried up. The extent of the ground thus devastated was as much as nine miles in length. Manifestly this was a case in which a whirlwind had descended and then risen again, for the track increased from 30 yards in width at Clères to about 300 yards near Monville, decreasing again to 100 yards near the Seine at Canteleu.

One of the most singular whirlwinds on record is that which devastated Châtenay, near Paris, in June 1839. We are told by Flammarion that it "burnt up the trees that lay within its circumference, and uprooted those which were upon its line of passage; the former, in fact, were found with the side which was exposed to the storm completely scorched and burnt, whereas the opposite side remained fresh and green. Thousands of large trees were blown down, and lay all one way like wheat sheaves. An apple tree was carried over 200 yards on to a group of oaks and elms. Houses were gutted inside without being blown down. Several roofs were carried off as if they were kites." But the strangest effect of all was the following: "An inside wall was cut into five nearly equal parts of eight yards each; the first, the third, and the fifth were laid in one direction; the second and the fourth in an exactly opposite direction."

Fortunately for the inhabitants of the temperate zones, the storms which can be compared, as respects the actual force of the wind, with the cyclone in tropical regions are usually much narrower in range. Even the great storm of 1703 was not equal in fury to the cyclone as it is known in the West Indies, in the North Pacific, in the China Seas, and in India. Nor are the storms around Cape

Horn and the Cape of Good Hope so terrible, though they raise higher seas, because of the wider range over which they travel. In a West Indian storm, the waters of the Gulf of Mexico have been known to be raised 30 feet, and to be carried so far and so high inland that a ship has ridden at anchor over land far above the highest tide-mark. The *Ledbury Snow* rode out such a storm, and when it abated "found herself high up on the dry land, and discovered that she had let go her anchor among the tree-tops on Elliott's Key."

We have seen that as there are special regions where great cyclones occur more frequently than elsewhere, so there are special seasons when cyclones may be expected in particular regions. The following facts may be added to those already mentioned. In the West Indies cyclones occur principally in August and September, when the south-east monsoons are at their height, unlike the hurricanes of the Indian Ocean, which occur at the changing of the monsoons. In the China Seas the typhoons, or white squalls, occur at the changing of the monsoons. As the West Indian cyclones follow the course of the Gulf Stream, so the typhoons follow the course of the great oceanic current which passes around the East Indian Archipelago, the shores of China, and the Japanese islands. In the open Pacific Ocean storms are infrequent, as also in the South Atlantic and South Indian Oceans. The great storms which sometimes rage around Cape Horn and the Cape of Good Hope are not cyclonic in character.

There are those who assert that besides the seasonal vicissitudes just mentioned other well-marked periodic variations may be recognised in the occurrence of cyclones. Amongst other periods they note one which is already celebrated in science, the eleven-year period, in which magnetic changes range from maximum through minimum to maximum again, and in which sun-spots increase, diminish, and again increase in number. It certainly does not appear at all impossible that the varying condition of the sun, shown by the existence of many spots at one time and few spots or none at another, should affect the condition of the earth's atmosphere. It is not sufficient to show, as an American

observer, Professor Langley, of Pittsburgh, has recently done, that the spots on the sun's face can reduce but to a very minute degree the emission of solar heat. It is not, indeed, at all likely that the sun-spots diminish the total emission of heat, or even of light. They themselves are dark, and represent regions, therefore, where less light, and as Professor Langley has shown, less heat also, are emitted. But they indicate the perturbed condition of the sun. We know certainly that the colored flames are more numerous and larger when the sun is most spotted, that eruptions then occur more frequently, that metallic vapors are then more freely ejected into the sun's sierra, and there is every reason to believe that the general surface of the sun—the photosphere, as it is called—then glows with a more intense heat, in consequence of the same perturbing influences which affect the solar flames, and produce the spots themselves. It certainly seems, from experiments which have been made at Greenwich, that the heat received by the earth each year is not constant, but varies in such a manner as to indicate that the cause of change lies without the earth. It will very probably be found, not indeed that sun-spots cause an excess of heat (any more than comets do), but that the same causes which produce sun-spots excite the sun to a degree of greater activity, and that thus the years of many sun-spots are years of great heat. There would be nothing very surprising or novel in such a conclusion, nor would it be in the least degree inconsistent with the views of those who have maintained (like Sir J. Herschel) that man cannot hope to obtain from solar observations any means of predicting the weather. As he himself said, in a passage which has been coolly appropriated by supporters of the contrary doctrine: "Looking to the sun as the great source of all meteorological action it might most reasonably be expected that such indications" (as sun-spots) "of an activity of some sort going on in its very photosphere, in the actual visible laboratory of its light and heat, would correspond to some difference in its supply of both; which recurring periodically, at stated intervals, must, one would think, manifest itself in some effect or other on our weather and

climates." But he went on to say, "Such, however, does not yet appear to be the case." Even if it were certainly shown, instead of the contrary, that disturbances in the earth's atmosphere follow the eleven-year solar period, the fact could only be discovered by terrestrial observations. To know that the sun was affected by changes having the same period, not merely in length, but maximum for maximum, and minimum for minimum, would be in itself interesting, but it would not in the slightest degree help us to a knowledge of coming terrestrial weather. We cannot possibly have better evidence from the sun than we can obtain from the earth.

Even if we knew certainly in what year to expect cyclones in particular regions, we should not gain much by the knowledge. We know now in what months they are most likely to rage, but the knowledge does not avail to enable men to provide against the destructive effects which a cyclone produces when it does come. Nothing but a knowledge of the very time and place where the cyclone was to be expected would have enabled the inhabitants of the region lately devastated to have saved themselves from its effects. Now if there is any hope that men will be able one day to predict beforehand the time and place of a great cyclone or hurricane, it surely must be by carefully examining the records of storms which have occurred on the earth, not by observations on the sun-spots, whose most marked and characteristic period has not yet been satisfactorily associated with any phenomena of our earth, except those of terrestrial magnetism.

But we have no reason for believing that cyclones occur more frequently in sun-spot years than when the sun is free from spots, or *vice versa*. It is easy to cite instances of great storms occurring in the same region, when the sun has been either without spots or covered with many spots. For this purpose we need not go beyond the region where the great cyclone of October 31st occurred. During the present year the sun has shown very few spots. We are in fact now very near the minimum of the sun-spot period, if not actually at that phase. In the year 1864 the sun showed many spots. We find from Schwabe's records

that that astronomer observed the sun on 325 days in the year 1864, and that there were only four days in which no spots were visible. No less than 130 new groups of spots made their appearance, the number in 1863 being only 124, and in 1865, only 93. Now in October 1864 a gale occurred in the same region which was devastated by the recent gale. All the ships in harbor at Calcutta were swept from their moorings and driven one upon another in inextricable confusion. "Fearful," we read, "as was the loss of life and property in Calcutta harbor, the destruction on land was yet greater. A vast wave swept for miles over the surrounding country, embankments were destroyed, and whole villages with their inhabitants were swept away. Fifty thousand souls, it is believed, perished in this fearful hurricane." We see, then, that a terribly destructive hurricane may occur in the same region during a year when the sun is marked by many spots, and also during a year like the present when he shows few or none. If it be urged that the connection between the occurrence of cyclones and the sun's condition is not of so rough a nature as our argument appears to assume—that averages rather than special storms must be considered, or that perhaps some minor features of cyclones are affected by the sun's condition, we answer that this may be very true, but if it is, it does not affect our position. The foreknowledge of variations in the average number of cyclones can be of no practical use. Moreover, periodic variations, if such exist, in the average number of cyclonic storms, can be most satisfactorily ascertained by direct meteorological observations, and whether they agree or not with sun-spot variations is a matter of no meteorological importance.

If there are in reality any regularly recurring periods in weather phenomena, we can only hope to recognise them by the careful examination of meteorological records. It appears to us that those already made have not been sufficiently examined, and their careful analysis by competent persons would be more likely to afford useful results than the same amount of labor devoted to the accumulation of fresh records. Of course, if any satisfactory results are to be ob-

tained, meteorological observations must be continued steadily. But it certainly does seem as though some few among the persons who have meteorological matters under their charge, might devote their attention to the work of analysing the millions of observations already collected. Even if it is impossible, as we are disposed for our own part to fear, to deduce any system for predicting weather more than a few hours or a day or two in advance, yet this at least might be done for many regions of the earth, which at present have no warning, even for an hour, of the approach of the most desolating hurricanes. Telegraphic communication, especially as we may hope to see it developed in the coming years, might be employed much more extensively than at present. Thus our own country, which warns countries to the east of coming storms, but receives no warnings, might receive useful intimation from the United States and the West Indies (remote though they are) of the advance of great cyclonic disturbances upon us from the neighborhood of the West Indies, Florida, and so forth. The further progress of great south-westerly disturbances towards our shores might be learned also from ships which, sailing towards the United States, have encountered rough weather when two or three days' sail from their destination. Ships making for Halifax or St. John's might afford even later intelligence. It is probable that in nearly every case, and certain that in many cases, cyclonic disturbances which have rounded the West Indian part of the great storm— and travelled along the shores of the United States beyond Hatteras (generally overlapping the land) pursue their course across the Atlantic, though with gradually diminishing force, until they reach Europe.

Probably a law would be found to connect their motions, on the western part of their track, and the direction along which they would strike the shores of Europe. Storms which, after rounding the West Indies, pass towards the north-east, without closely approaching the United States, may usually reach the shores of Spain, or the Bay of Biscay, while those which overlap the south-eastern States of America, may pass across the Atlantic on a more northerly track, and make for the British Isles, or pass even north of Scotland to the shores of Norway. As it is probable that very few really fierce hurricanes reach us from the south-west which have not first been felt on the western side of the Atlantic, it would be worth while to analyse very carefully all that can be learned respecting the course of such storms. And certainly the expense of telegraphic communication from the other side of the Atlantic would not be worth considering in comparison with the advantage derived from early intimation of the approach of great hurricanes towards the shores of Europe. In other regions, and especially in the tropics, telegraphic communication might be much more readily and effectively employed in announcing the approach of hurricanes. There are reasons for believing that the great cyclone of October last traversed a course which at several points touched places whence news of the advancing storm might have been telegraphed to the threatened region. Although little could have been done to prevent the destruction to property which the cyclone caused, many thousands of lives (probably more than two hundred thousand) might have been saved if half a day's or even half an hour's warning had been given.—*Cornhill Magazine*.

MUSIC AND MUSICIANS.

BY L. MASON.

If those who, in or about the years 1830-32, were lamenting the apathy of most English men and women in musical matters, and the lack of taste and discernment even in those who were not apathetic, are now living, and wide awake

to the changes which have taken place in these respects, they must be both pleased and surprised. In many very important particulars we have passed through a revolution,—nay, more than one revolution,—within the last thirty

years. In musical matters the change has been enormous. In the writings of musical critics of the time of Charles Knight there was either a note of despairing urgency or a note of cynical contempt whenever *popular* music was on the carpet as a topic. Then came Hickson, Hullah, Mainzer, and others. Even so late as the time when the Messrs. W. and R. Chambers were issuing their "Papers for the People," the tone of the musical propagandist was one of (what might be called) depreciating earnestness mingled with patronage, and it is still true that the English public is not, properly speaking, "musical." The mass of people do not care for music by itself,—music pure and simple; they like it as a flavoring to other things, and as a sort of pleasant kill-time; but an average English audience do not listen to music with the disinterested brooding enjoyment of a German audience.

Nevertheless, the change that has taken place in these matters is, we may repeat, incalculably great; and, as usual in changes of wide scope, whether for better or worse, the alteration has been brought about in unexpected ways. A most pleasant writer in Knight's *Penny Magazine* published, among other suggestions, some hints for a very cheap musical instrument, promising the person who should invent it to make his name known from one end of the kingdom to the other. It was to be simple and easy to play, not very liable to get out of tune, and (I think) its cost was not to exceed thirty shillings. Well, no such instrument has yet been made. But the means and tastes of the respectable portion of the lower middle classes have wonderfully improved, and the harmonium has, perhaps, done even more than this admirable writer hoped for from the cheap musical instrument that he wanted some one to invent. And as for cheap music of high quality, it may be bought for almost nothing. The sale of penny sheets of such music is beyond our guessing, and almost any oratorio or opera may, unless we are mistaken, be bought as cheap as eighteen pence, while half-crown editions are as common as paving-stones.

We may speak of sacred and secular music as much as we please, and we may shut out certain forms of music from re-

ligious uses, just as in early mediæval times the "Lydian mode" was excluded from cathedrals. Mr. Newman Hall was justly indignant when some volunteer musician performed a selection from Lecocq's "Madame Angot" at a religious meeting. But, upon close inspection, we find the boundary line between secular and sacred music cannot be kept sharp and clear, and it is certain that in our own day the culture of both kinds has proceeded at the same time and in company. No doubt there are households where Mendelssohn is played and Chopin would be shut out, but such houses are few. And, by the way, no *great* name in music is more closely connected with the growth of musical culture in England than that of Mendelssohn. While his music is of the highest kind there is a certain graceful intelligibility about it. It had to fight its way like other new-born music, but it had not to encounter the same difficulties as the music of Beethoven or Schubert. Every new-comer in music has to make his own public. The case of Wagner is extreme, but it is in point.

The growth of musical culture is one thing, the growth of music another. Can a new musician strike into a new path in music? Mendelssohn stands committed, upon the report of Professor Marx, to some strong views in the negative direction. The discussion seems to have turned largely upon the question whether Beethoven had "opened a new path." Mendelssohn appears to have denied that he had, and to have maintained that a new path was impossible:—

"Every one capable of wielding a shovel and moving his legs can open a path for himself; but if they employ the expression in the higher sense, I deny its applicability altogether. *There is no such thing as a new road*, simply because there is no new region of art to which it could lead. New roads! That artist is sure to be led astray who gives himself up to this evil demon! No artist has ever opened a new road. At the most he only did his work a little better than his immediate predecessors. Who is to strike out a new path in art? A genius. Well, has Beethoven shown us a new road entirely different from that in which Mozart walked? Are his symphonies altogether new in form and conception? I

say No! Beethoven's *forms are wider and broader*; his style is more polyphonic and artistic; his ideas are more gloomy and melancholy, even where they endeavor to assume a cheerful tone; his instrumentation is fuller;—*he has gone a little further on the road of his predecessors, but by no means struck out into a new path.* And to be candid, where has he led us to? Has he opened to us a region of art more *beautiful* than those previously known? As far as I am concerned I confess openly that I do not feel it."

But it is not such an easy question as it looks. Would it be inaccurate, comparing the church music of the time of Clement Marot with the music of the old Greeks, to say that "a new path" had been struck out? Or, to take the question of the dominant seventh,—when the use of this chord was discovered, was not a "new path" opened? Again: suppose Wagner is right,—suppose the present musical code, which forbids consecutive fifths and consecutive eighths, and some other things not alien to the "music of the future," should come to be flung to the winds; surely we should have to enter upon a "new path" then. Lastly, there is this question. The music of the East (we will say) is of such a character as not to be recognisable for pleasing music by a European ear. Now, what will happen to the music of the East? Will it gradually disappear under the advance of Western culture, or will any of its essential peculiarities undergo a process of incorporation into the Western modes? If the latter, there is no telling how very "new" the "new path" may be.

But we need not be anxious for any new path whatever; there is plenty of pleasure for us yet to be found in the old. Mr. Mill used, in his latter days, to be troubled by a very reasonable and too well-grounded fear—he dreaded lest the increase of population in England should not only tend to destroy individuality and greatness of character,—which it is fast going on to do; but that it should lead to the destruction of natural beauty in the face of the country,—which is also happening under our eyes. In youth he had, however, another apprehension, which was an absurd one. It struck him one day that the number of musical com-

binations possible to us was limited, and that some day we should come to the end of our musical enjoyment. If he had done the sums in permutation which Professor Stanley Jevons and others have done, he would have seen that his fears were idle:—

"If," says the learned Professor, "the whole population of the world, say one hundred thousand millions of persons, were to deal cards day and night for a hundred million years, they would not in that time have exhausted one hundred thousandth part of the possible deals. Now, even with the same hands the play may be almost infinitely varied, so that the complete variety of games which may exist is almost incalculably great. It is in the highest degree improbable that any one game of whist was ever exactly like another, except by intention.

"The end of novelty in art might well be dreaded, did we not find that nature at least has placed no attainable limit, and that the deficiency will lie in our inventive faculties. It would be a cheerless time, indeed, when all possible varieties of melody were exhausted; but it is readily shown that if a peal of twenty-four bells had been rung continuously from the so-called beginning of the world to the present day, no approach could have been made to the completion of the possible changes. Nay, had every single minute been prolonged to 10,000 years, still the task would have been unaccomplished. As regards ordinary melodies, the eight notes of a single octave give more than 40,000 permutations, and two octaves more than a million millions. If we were to take into account the semitones, it would become apparent that it is practically impossible to exhaust the variety of music."

This is comforting, indeed. We will close these desultory remarks, which have gathered around the portrait of Mendelssohn, by a quotation from the latest *Life of Mendelssohn*, in which Mr. Bayard Taylor gives an account of an interview which, at twenty years of age, he had with the musician:—

"The servant ushered me into a plainly-furnished room, containing a grand piano, and a few pictures and books, in addition to the ordinary articles. A moment afterwards the door of an adjoining chamber opened, and Mendels-

sohn appeared. . . . He at once gave me his hand, asked me to be seated, and drew another chair for himself to the little round table near the window.

"I sat thus, face to face with him, and again looked into those dark, lustrous, unfathomable eyes. They were black, but without the usual opaqueness of black eyes; shining,—not with a surface light, but with a pure, serene, planetary flame. His brow, white and unwrinkled, was high and nobly arched, with great breadth at the temples, strongly resembling that of Poe. His nose had the Jewish prominence, without its usual coarseness. I remember, particularly, that the nostrils were as finely cut and as flexible as an Arab's. The lips were thin, and rather long, but with an expression of indescribable sweetness in their delicate curves. His face was a long oval in form; and the complexion pale, but not pallid. As I looked upon him, I said to myself, 'The Prophet David!' and, since then, I have seen in the Hebrew families of Jerusalem, many of whom trace their descent from the princely houses of Israel, the same nobility of countenance. Those who have read the rhapsodical romance of 'Charles Auchester,' wherein the character of Seraphael is meant to represent Mendelssohn, will find his personality transfigured by one of his adorers: yet, having seen that noble head, those glorious eyes, I scarcely wonder at the author's extravagance. The composer Benedict once told me that, when he was pursuing his musical stud-

ies under Carl Maria von Weber, his fellow-student, the boy Mendelssohn, was a picture of almost supernatural beauty."

There may be a little extravagance, or false sentiment, here,—something of what is vulgarly called "spooning;" and the fancy that Mendelssohn resembled David is, of course, gratuitous. One general resemblance there always is in the heads of poets, and other idealists,—that breadth at the temples of which Mr. Bayard Taylor speaks; but David was essentially a man of action and a warrior, while the exquisitely-gentle Mendelssohn was essentially a contemplatist. There is too much reason to fear that he died of contact with "men of action." He could not stand the world, with its "foolish fat" praise, its "owlish fat" blame, and its trade trickeries in the very porch of the temple, nay, sometimes up to the adytum. There are many forms of broken heart. Dickens's poor little dwarf said that when a man goes into society society goes into him. Society went into Mendelssohn, and he died of it. An outsider would have said, "If ever man had cause to be happy, it is this great and successful musician;" but deep down in his soul poor Mendelssohn was saying, with Shelley,—

"Alas, this is not what I thought life was!"

and with Elizabeth Barrett Browning,—

"At last we're tired: my heart and I."

And he sleeps.—*Evening Hours.*

MESMERISM, ODYLISM, TABLE-TURNING AND SPIRITUALISM,

CONSIDERED HISTORICALLY AND SCIENTIFICALLY.

TWO LECTURES DELIVERED AT THE LONDON INSTITUTION, DECEMBER, 1876.

BY WILLIAM B. CARPENTER, C.B., M.D., LL.D., F.R.S.

LECTURE I.

THE aphorism that 'History repeats itself' is in no case more true than in regard to the subject on which I am now to address you. For there has been a continuity from the very earliest times of a belief more or less general, in the existence of 'occult' agencies, capable of manifesting themselves in the produc-

tion of mysterious phenomena, of which ordinary experience does not furnish the *rationale*. And while this very continuity is maintained by some to be an evidence of the real existence of such agencies, it will be my purpose to show you that it proves nothing more than the widespread diffusion, alike among minds of the highest and of the lowest culture, of certain tendencies of thought, which have

either created ideal marvels possessing no foundation whatever in fact, or have by exaggeration and distortion invested with a preternatural character occurrences which are perfectly capable of a natural explanation. Thus, to go no further back than the first century of the Christian era, we find the most wonderful narrations, alike in the writings of Pagan and Christian historians, of the doings of the Eastern 'sorcerers' and Jewish 'exorcists' who had spread themselves over the Roman Empire. Among these the Simon Magus slightly mentioned in the Book of Acts was one of the most conspicuous; being recorded to have gained so great a repute for his 'magic arts,' as to have been summoned to Rome by Nero to exhibit them before him; and a Christian Father goes on to tell how when Simon was borne aloft through the air in a winged chariot in the sight of the Emperor, the united prayers of the Apostles Peter and Paul, prevailing over the demoniacal agencies that sustained him, brought him precipitately to the ground. In our own day, not only are we seriously assured by a nobleman of high scientific attainments that he himself saw Mr. Home sailing in the air (by moonlight) out of one window and in at another, at a height of seventy feet from the ground; but eleven persons unite in declaring that Mrs. Guppy was not only conveyed through the air in a trance all the way from Highbury Park to Lamb's Conduit Street, but was brought by invisible agency into a room of which the doors and windows were closed and fastened, coming 'plump down' in a state of complete unconsciousness and partial *déshabille* upon a table round which they were sitting in the dark, shoulder to shoulder.

Of course, if you accept the testimony of these witnesses to the aerial flights of Mr. Home and Mrs. Guppy, you can have no reason whatever for refusing credit to the historic evidence of the demoniacal elevation of Simon Magus, and the victory obtained over his demons by the two Apostles. And you are still more bound to accept the solemnly attested proofs recorded in the proceedings of our Law Courts within the last two hundred years, of the aerial transport of witches to attend their demoniacal festivities; the belief in Witchcraft

being then accepted not only by the ignorant vulgar, but by some of the wisest men of the time, such as Lord Bacon and Sir Matthew Hale, Bishop Jewell, Richard Baxter, Sir Thomas Browne and Addison; while the denial of it was considered as virtual Atheism.

The general progress of Rationalism, however, as Mr. Lecky has well shown, has changed all this; and to accept any of these marvels, we must place ourselves in the mental attitude of the narrator of Mrs. Guppy's flight; who glories in being so completely unfettered by scientific prejudices, as to be free to swallow anything, however preposterous and impossible in the estimation of scientific men, that his belief in 'spiritual' agencies may lead him to expect as probable.

If time permitted, it would be my endeavor to show you by a historical examination of these marvels, that there has been a long succession of Epidemic Delusions, the form of which has changed from time to time, whilst their essential nature has remained the same throughout; and that the condition which underlies them all is the *subjection of the mind to a dominant idea*. There is a constitutional tendency in many minds to be seized by some strange notion which takes entire possession of them; so that all the actions of the individual thus 'possessed' are results of its operation. This notion may be of a nature purely intellectual, or it may be one that strongly interests the feelings. It may be confined to a small group of individuals, or it may spread through vast multitudes. Such delusions are most tyrannous and most liable to spread, when connected with religious enthusiasm; as we see in the dancing and flagellant manias of the Middle Ages; the supposed demoniacal possession that afterwards became common in the nunneries of France and Germany; the ecstatic revelations of Catholic and Protestant visionaries; the strange performances of the Convulsionnaires of St. Médard, which have been since almost paralleled at Methodist 'revivals' and camp-meetings; the preaching epidemic of Lutheran Sweden; and many other outbreaks of a nature more or less similar. But it is characteristic of some of the later forms of these epidemic delusions, that they have con-

nected themselves rather with Science than with Religion. In fact, just as the performances of Eastern Magi took the strongest hold of the Roman mind when its faith in its old religious beliefs was shaken to its foundations, so did the grandiose pretensions of Mesmer,—who claimed the discovery of a new Force in Nature, as universal as gravitation, and more mysterious in its effects than electricity and magnetism,—find the most ready welcome among sceptical votaries of novelty who paved the way for the French Revolution. And this pseudoscientific idea gave the general direction to the doctrines taught by Mesmer's successors; until in the supposed 'spiritualistic' manifestations, a recurrence to the religious form took place, which may I think be mainly traced to the emotional longing for some assurance of the continued existence of departed friends, and hence of our own future existence, which the intellectual loosening of time-honored beliefs as to the immortality of the soul has brought into doubt with many.

I must limit myself, however, to this later phase of the history; and shall endeavor to show you how completely the extravagant pretensions of Mesmerism and Odylism have been disproved by scientific investigation: all that is genuine in their phenomena having been accounted for by well-ascertained Physiological principles; while the evidence of their higher marvels has invariably broken down when submitted to the searching tests imposed by the trained experts whom I maintain to be alone qualified to pronounce judgment upon the matter.

Nothing is more common than to hear it asserted that these are subjects which any person of ordinary intelligence can investigate for himself. But the Chemist and the Physicist would most assuredly demur to any such assumption in regard to a chemical or physical enquiry; the Physiologist and Geologist would make the same protest against the judgment of unskilled persons in questions of physiology and geology. And a study of Mesmerism, Odylism, and Spiritualism extending over more than forty years, may be thought to justify me in contending that a knowledge of the physiology and pathology of the Human Mind, of its extraordinary tendency to self-deception in regard to matters in which its

feelings are interested, of its liability to place undue confidence in persons having an interest in deceiving, and of the modes in which fallacies are best to be detected and frauds exposed, is an indispensable qualification both for the discrimination of the genuine from the false, and for the reduction of the genuine to its true shape and proportions.

And I further hold not only that it is quite legitimate for the enquirer to enter upon this study with that 'prepossession' in favor of the ascertained and universally admitted Laws of Nature, which believers in Spiritualism make it a reproach against men of science that they entertain; but that experience proves that a prepossession in favor of some 'occult' agency is almost sure to lead the investigator to the too ready acceptance of evidence of its operation. I would be the last to affirm that there is not 'much more in heaven and earth than is known to our philosophy;' and would be among the first to welcome any addition to our real knowledge of the great agencies of nature. But my contention is that no new principle of action has any claim to scientific acceptance, save upon evidence as complete and satisfactory as that which would be required in any other scientific investigation.

The recent history of Mr. Crooke's most admirable invention, the Radiometer, is pregnant with lessons on this point. When this was first exhibited to the admiring gaze of the large body of scientific men assembled at the *soirée* of the Royal Society, there was probably no one who was not ready to believe with its inventor that the driving round of its vanes was effected by *light*; and the eminent Physicists in whose judgment the greatest confidence was placed, seemed to have no doubt that this mechanical agency was something outside Optics properly so called, and was, in fact, if not a new force in nature, a new *modus operandi* of a force previously known under another form. There was here, then, a perfect readiness to admit a novelty which seemed so unmistakably demonstrated, though transcending all previous experience. But after some little time the question was raised whether the effect was not really due to action of *heat* upon the attenuated vapor of which it was impossible entirely to get rid; and

the result of a most careful and elaborate experimental enquiry, in which nature has been put to the question in every conceivable mode, has been to make it (I believe) almost if not quite certain that the first view was incorrect, and that heat is the real moving power, acting under peculiar conditions, but in no new mode.

No examination of the phenomena of Spiritualism can give the least satisfaction to the mind trained in philosophical habits of thought, unless it shall have been, in its way, as searching and complete as this. And when scientific men are invited to dark *séances*, or admitted only under the condition that they shall merely look on and not enquire too closely, they feel that the matter is one with which they are entirely precluded from dealing. When, again, having seen what appears to them to present the character of a very transparent conjuring trick, they ask for a repetition of it under test-conditions admitted to be fair, their usual experience is that they wait in vain (for hours it may be) for such repetition, and are then told that they have brought an 'atmosphere of incredulity' with them, which prevents the manifestation. Now I by no means affirm that the claims of Spiritualism are disproved by these failures; but I do contend that until the evidence advanced by believers in those claims has stood the test of the same sifting and cross-examination by sceptical experts, that would be applied in the case of any other scientific enquiry, it has no claim upon general acceptance; and I shall now proceed to justify that contention by an appeal to the history of previous enquiries of the like kind.

It was about the year 1772 that Mesmer, who had previously published a dissertation *On the Influence of the Planets on the Human Body*, announced his discovery of a universal fluid, 'the immediate agent of all the phenomena of nature, in which life originates, and by which it is preserved;' and asserted that he had further discovered the power of regulating the operations of this fluid, to guide its currents in healthy channels, and to obliterate by its means the tracks of disease. This power he in the first instance professed to guide by the use of magnets; but having quarrelled with

Father Hell, a professor of astronomy at Vienna, who had furnished him with the magnets with which he made his experiments, and who then claimed the discovery of their curative agency, Mesmer went on to assert that he could concentrate the power in and liberate it from any substance he pleased, could charge jars with it (as with electricity) and discharge them at his pleasure, and could cure by its means the most intractable diseases. Having created a great sensation in Bavaria and Switzerland by his mysterious manipulations, and by the novel effects which they often produced, Mesmer returned to Vienna, and undertook to cure of complete blindness a celebrated singer, Mdle. Paradis, who had been for ten years unsuccessfully treated by the court physician. His claim to a partial success, however, which was in the first instance supported by his patient, seemed to have been afterwards so completely disproved by careful trials of her visual powers, that he found himself obliged to quit Vienna abruptly, and thence proceeded to Paris, where he soon produced a great sensation. The state of French society at that time, as I have already remarked, was peculiarly favorable to his pretensions. A feverish excitability prevailed, which caused the public mind to be violently agitated by every question which it took up. And Mesmer soon found it advantageous to challenge the learned societies of the capital to enter the lists against him; the storm of opposition which he thus provoked having the effect of bringing over to his side a large number of devoted disciples and ardent partisans. He professed to distribute the magnetic fluid to his congregated patients, from a *baquet* or magnetic tub which he had impregnated with it, each individual holding a rod which proceeded from the *baquet*; but when the case was particularly interesting, or likely to be particularly profitable, he took it in hand for personal magnetisation. All the surroundings were such as to favor, in the hysterical subjects who constituted the great bulk of his patients, the nervous paroxysm termed the 'crisis;' which was at once recognised by medical men as only a modified form of what is commonly known as a 'hysterical fit;' the influence of the imitative tendency being

manifested as it is in cases where such fits run through a school, nunnery, factory, or revivalist meeting, in which a number of suitable subjects are collected together. And it was chiefly on account of the moral disorders to which Mesmer's proceedings seemed likely to give rise, that the French Government directed a Scientific Commission, including the most eminent *savans* of the time—such as Lavoisier, Bailly, and Benjamin Franklin—to enquire into them. After careful investigation they came to the conclusion that there was no evidence whatever of any special agency proceeding from the *baquet*; for not only were they unable to detect the passage of any influence from it that was appreciable, either by electric, magnetic, or chemical tests, or by the evidence of any of their senses; but on blindfolding those who seemed to be most susceptible to its supposed influence, all its ordinary effects were produced when they were without any connection with it, *but believed that it existed*. And so, when in a garden of which certain trees had been magnetised, the patients, either when blindfolded, or when ignorant which trees had been magnetised, would be thrown into a convulsive fit if they believed themselves to be near a magnetised tree, but were really at a distance from it; whilst, conversely, no effect would follow their close proximity to one of these trees, while they believed themselves to be at a distance from any of them. Further, the Commissioners reported that, although some cures might be wrought by the Mesmeric treatment, it was not without danger, since the convulsions excited were often violent and exceedingly apt to spread, especially among men feeble in body and weak in mind, and almost universally among women; and they dwelt strongly also on the moral dangers which, as their enquiries showed, attended these practices.

Now this report, although referring to a form of Mesmeric procedure which has long since passed into disrepute, really deals with what I hold to be an important principle of action, which, long vaguely recognised under the term 'imagination,' now takes a definite rank in Physiological science;—namely, that in individuals of that excitable nervous temperament which is known as 'hysterical'

(a temperament by no means confined to women, but rare in healthy and vigorous men), the *expectation* of a certain result is often sufficient to evoke it. Of the influence of this 'expectancy' in producing most remarkable changes in the bodily organism, either curative or morbid, the history of Medicine affords abundant and varied illustrations; and I shall presently show you that it operates no less remarkably in calling forth movements which, not being consciously directed by the person who executes them, have been attributed to hypothetical occult agencies.

I shall not trace the further history of Mesmer, or of the system advocated by himself; contenting myself with one ludicrous example of the absurdity of his pretensions. When asked in his old age by one of his disciples, why he ordered his patients to bathe in river-water in preference to well-water, he replied that it was because river-water is exposed to the sun's rays; and when further asked how these affected it in any other way than by the warmth they excited, he replied, 'Dear doctor, the reason why all water exposed to the rays of the sun is superior to all other water, is because it is magnetised—since twenty years ago *I magnetised the sun!*'

In the hands of some of his pupils, however, Animal Magnetism, or Mesmerism (as it gradually came to be generally called), assumed an entirely new development. It was discovered by the Marquis de Puysegur,—a great landed proprietor, who appears to have practised the art most disinterestedly for the sole benefit of his tenantry and poor neighbors,—that a state of profound insensibility might be induced by very simple methods in some individuals, and a state akin to somnambulism in others; and this discovery was taken up and brought into vogue by numerous mesmerisers in France and Germany, while, during the long Continental war and for some time afterwards, it remained almost unknown in England. Attention seems to have been first drawn to it in this country by the publication of the account of a severe operation performed in 1829 by M. Cloquet, one of the most eminent surgeons of Paris, on a female patient who had been thrown by mesmerism into the state of somnambulism; in which, though

able to converse with those around her, she showed herself entirely insensible to pain, whilst of all that took place in it she had subsequently no recollection whatever. About twelve years afterwards, two amputations were performed in our own country, one in Nottinghamshire, and the other in Leicestershire, upon mesmerised patients, who showed no other sign of consciousness than an almost inaudible moaning; both of them exhibiting an uninterrupted placidity of countenance, and declaring, when brought back to their ordinary state, that they were utterly unaware of what had been done to them during their sleep. And not long afterwards, Dr. Esdaile, a surgeon in Calcutta, gave details of numerous most severe and tedious operations performed by him, without the infliction of pain, upon natives in whom he had induced the mesmeric sleep; the rank of Presidency Surgeon being conferred upon him by Lord Dalhousie (then Governor-General of India), 'in acknowledgment of the services he had rendered to humanity.' The results of minor experiments performed by various persons desirous of testing the reality of this state, were quite in harmony with these. Writing in 1845, Dr. Noble, of Manchester (with whom I was early brought into association by Sir John Forbes in the pursuit of this enquiry), said:

We have seen a needle thrust deeply under the nail of a woman sleeping mesmerically, without its exciting a quiver; we have seen pungent snuff in large quantities passed up the nostrils under the same circumstances, without any sneezing being produced until the patient was roused, many minutes afterwards: we have noticed an immunity from all shock when percussion caps have been discharged suddenly and loudly close to the ear; and we have observed a patient's little finger in the flame of a candle, and yet no indication of pain. In this latter case all idea of there having been courageous dissimulation was removed from our mind in seeing the same patient afterwards evince both surprise and indignation at the treatment received; as, from particular circumstances, a substantial inconvenience was to result from the injury to the finger, which was by no means slight.*

This 'mesmeric sleep' corresponds precisely in character with what is known in medicine as 'hysteric coma;' the insensibility being as profound, while it

lasts, as in the coma of narcotic poisoning or pressure on the brain; but coming on and passing off with such suddenness as to show that it is dependent upon some transient condition of the sensorium, which, with our present knowledge, we can pretty certainly assign to a reduction in the supply of blood caused by a sort of spasmodic contraction of the blood-vessels. That there is no adequate ground for regarding it as otherwise than *real*, appears further from the discovery made not long afterwards by Mr. Braid, a surgeon practising at Manchester, that he could induce it by a very simple method, which is not only even more effective than the 'passes' of the mesmeriser, but is moreover quite independent of any other will than that of the person who subjects himself to it. He found that this state (which he designated as Hypnotism) could be induced in a large proportion of individuals of either sex, and of all ranks, ages, and temperaments, who determinately fix their gaze for several minutes consecutively on an object brought so near to their eyes, as to require a degree of convergence of their axes that is maintainable only by a strong effort.*

The first state thus induced is usually one of profound comatose sleep; the 'subject' not being capable of being roused by sensory impressions of any ordinary kind, and bearing without the least indication of consciousness what would ordinarily produce intolerable uneasiness or even severe pain. But after some little time, this state very com-

* Mr. Braid's peculiar success in inducing this state seemed to depend partly upon his mode of working his method, and partly upon the 'expectancy' of his subjects. Finding a bright object preferable, he usually employed his silver lancet-case, which he held in the first place at ordinary reading distance, rather above the plane of the eyes; he then slowly approximated it towards the middle point, a little above the bridge of the nose, keeping his own eyes steadily fixed upon those of his 'subject,' and watching carefully the direction of their axes. If he perceived their convergence to be at all relaxed, he withdrew the object until the axes were both again directed to it; and then again approximated it as closely as was compatible with their continued convergence. When this could be maintained for a sufficient length of time upon an object at no more than about three inches distance, the comatose state generally supervened.

* *British and Foreign Medical Review*, April 1845.

monly passes into one of Somnambulism, which again corresponds closely on the one hand with *natural*, and on the other with *mesmeric* somnambulism. In fact, it has been by the study of the somnambulism artificially induced by Mr. Braid's process, that the essential nature of this condition has been elucidated, and that a scientific *rationale* can now be given of a large proportion of the phenomena reported by Mesmerisers as having been presented by their somnambules.

It has been claimed for certain mesmeric somnambules, however, that they occasionally possess an intelligence altogether superhuman as to things present, past, and future, which has received the designation 'lucidity;' and it is contended that the testimony on which we accept the reality of phenomena which are conformable to our scientific experience, ought to satisfy us equally as to the genuineness of those designated as 'the higher,' which not only transcend, but absolutely contradict what the mass of enlightened men would regard as universal experience. This contention, however, seems to me to rest upon an entirely incorrect appreciation of the probative force of evidence; for, as I shall endeavor to prove to you in my succeeding lecture, the only secure basis for our belief on *any* subject, is the confirmation afforded to external testimony by our sense of the inherent probability of the fact testified to; so that, as has been well remarked, 'evidence tendered in support of what is new must correspond in strength with the degree of its incompatibility with doctrines generally admitted as true; and, where statements obviously contravene all past experience and the universal consent of mankind, any evidence is inadequate to the proof, which is not complete, beyond suspicion, and absolutely incapable of being explained away.'

Putting aside for the present the discussion of these asserted marvels, I shall try to set before you briefly the essential characters which distinguish the state of Somnambulism (whether natural or acquired), on the one hand from dreaming, and on the other from the ordinary waking condition. As in both these, the mind is in a state of activity; but, as in dreaming, its activity is free from that controlling power of the will

by which it is directed in the waking state; and is also removed from this last by the complete ignorance of all that has passed in it, which is manifested by the 'subject' when called back to his waking self,—although the events of one access of this 'second consciousness' may vividly present themselves in the next, as if they had happened only just before. Again, instead of all the senses being shut up, as in ordinary dreaming sleep, some of them are not only awake, but preternaturally impressible; so that the course of the somnambulist's thought may be completely directed by suggestions of any kind that can be conveyed from without through the sense-channels which still remain open. But further, while the mind of the ordinary dreamer can no more produce movements in his body than his impressions on sense-organs can affect his mind, that of the somnambulist retains full direction of his body (in so far, at least, as his senses serve to guide its movements); so that he *acts* his dreams as if they were his waking thoughts. The mesmerised or hypnotised somnambule may, in fact, be characterised as a *conscious automaton*, which, by appropriate suggestions, may be made to think, feel, say, or do almost anything that its director wills it to think, feel, say, or do; with this remarkable peculiarity, that its whole power seems concentrated upon the state of activity in which it is at each moment, so that every faculty it is capable of exerting may become extraordinarily intensified. Thus, while vision is usually suspended, the senses of hearing, smell, and touch, with the muscular sense, are often preternaturally acute; in consequence, it would seem, of the undistracted concentration of the attention on their indications. I could give you many curious instances of this, which I have myself witnessed; as also of the great exertion of muscular power by subjects of extremely feeble *physique*; but as they are all obviously referrible to this one simple principle, I need not dwell on their details, preferring to narrate one which I did not myself witness, but which was reported to me on most trustworthy authority, of a remarkable manifestation of a power of imitative vocalisation that is ordinarily attainable only after long practice. When Jenny Lind was singing

at Manchester, she was invited by Mr. Braid to hear the performances of one of his hypnotised subjects, an illiterate factory girl, who had an excellent voice and ear, but whose musical powers had received scarcely any cultivation. This girl in the hypnotic state followed the Swedish nightingale's songs in different languages both instantaneously and correctly; and when, in order to test her powers, Mdle. Lind extemporised a long and elaborate chromatic exercise, she imitated this with no less precision, though unable in her waking state even to attempt anything of the sort. Now I wish you to compare this case with another, which was reported about the same time upon what seemed equally unexceptionable testimony. When Miss Martineau first avowed her conversion to mesmerism, the extraordinary performances of her servant J— were much talked of; and among other marvels it was asserted that she could converse, when in her mesmeric state, in languages she had never learned, and of which she knew nothing when awake; the particular fact being explicitly stated, that Lord Morpeth had tested this power and had found it real. Now you will readily perceive that supposing the testimony in these two cases to have been exactly the same, its probative force would have been very different. For the first of them, though unprecedented, presented no scientific improbability to those who were prepared by their careful study of the phenomena of Hypnotism, to believe that the power of imitative vocalisation, like any other, might be intensified by the concentration of the 'subject's' whole attention upon the performance. But it seemed inconceivable that an uneducated servant girl could understand what was said to her in a language she had never learned; still more that she should be able to reply in the same language. And the only possible explanation of the fact, *if fact it was*, short of a miracle, may have lain, either in her having learned the language long before and subsequently forgotten it, or in her being able by 'thought-reading' (which is maintained by some, even at the present time, to be one of the attributes of the mesmeric state) to divine and express the answer expected by Lord Morpeth. But the marvel was entirely dissipated

by the enquiries of Dr. Noble; who, being very desirous of getting at the exact truth, first applied for information to a near relative of Miss Martineau, and was told by him that the report was not *quite* accurate, for that on Lord Morpeth putting a question to J— in a foreign language, J— had replied appropriately in her own vernacular. Her comprehension of Lord Morpeth's question, however, appeared in itself sufficiently strange to be suggestive of some fallacy; and having an opportunity not long afterwards of asking Lord Morpeth himself what was the real state of the case, Dr. Noble learned from him that when he put a question to J— in a foreign language, she imitated his speech after a fashion by an unmeaning articulation of sound.

On the lesson which this case affords as to the credibility of testimony in regard to what are called the 'higher phenomena' of mesmerism, I shall enlarge in my succeeding lecture; and at present I shall only remark that it was shown by careful comparison between the phenomena displayed by the same individuals, when 'mesmerised' in the ordinary way, and 'hypnotised' by Mr. Braid's process, that there was no other difference between the two states than that arising from the special *rapport* between the mesmeriser and his subject; and that this was clearly explicable by the 'expectancy' under which the 'subject' passed into the state of second consciousness. For Mr. Braid found himself able, by assuring his 'subjects' during the induction of the coma that they would hear the voice of one particular person and no other, to establish this *rapport* with any person he might choose; the case being strictly analogous to the awaking of the telegraph-clerk by the clicking of his needles, of the doctor by his night-bell, or of the mother by her infant's cry, though all would sleep soundly through far louder noises to which they felt no call to attend. And thus, as was pointed out long since by Dr. Noble and myself, not only may the general reality of the mesmeric somnambulism be fully admitted, but a scientific *rationale* may be found for its supposed distinctive peculiarities, without the assumption of any special 'magnetic' or 'mesmeric' agency.

It is affirmed, however, that proof of this agency is furnished by the power of the 'silent will' of the mesmeriser to induce the sleep in 'subjects' who are not in the least aware that it is being exerted, and, further, to direct from a distance the actions of the somnambule. Doubtless if satisfactory proof of this assertion could be furnished, it would go far to establish the claim. But nothing is more difficult than to eliminate all sources of fallacy in this matter. For while it is admitted by mesmerisers that the belief that the influence is being exerted is quite sufficient, in habitual somnambules, to induce the result, it is equally certain that such 'sensitives' are marvellously quick at guessing from slight intimations what is expected to happen. And it has been repeatedly found that mesmerisers who had no hesitation in asserting that they could send particular 'subjects' to sleep, or could affect them in other ways, by an effort of silent will, have utterly failed to do so when these subjects were carefully kept from any suspicion that such will was being exerted. Thus Dr. Noble has recorded the case of a friend of his own, who, believing himself able thus to influence a female servant whom he had repeatedly mesmerised, accepted with the full assurance of confident faith a proposal to make this experiment in Dr. Noble's house instead of his own. The girl, having been sent thither with a note, was told to sit down in Dr. Noble's consulting-room while the answer was being written; her chair being close to a partially open door, on the other side of which her master, whom she supposed to be elsewhere, had previously taken up his position. Although this gentleman had usually found two or three minutes sufficient to send the girl to sleep when he was in his own drawing-room and she was in the kitchen, the two being separated by intervening walls and flooring, yet when he put forth his whole force for a quarter of an hour within two feet of her, with only a partially closed door between them, it was entirely without result; and no other reason for the failure could be assigned than her entire freedom from expectancy. So in another case, in which Mr. Lewis (accounted one of the most powerful mesmerists of his time) undertook to direct the actions of his somnambule

in the next room, according to a programme agreed on between himself and one set of witnesses, whilst the actions actually performed were recorded and timed by another set, there was found to be so complete a discordance between the programme 'willed' and the actions really executed, as entirely to negative the idea of any dependence of the latter upon the directing power of the mesmeriser; the supposed relation having obviously grown up under the habitual repetition of a certain succession of performances (such as I had myself frequently witnessed), which the somnambule supposed himself expected to go through in the same order.* A converse experiment, performed by Dr. Elliotson himself, satisfied him that expectancy would take the place of what he maintained to be the real mesmeric influence. Having told one of his *habitués* that he would go into the next room and mesmerise her through the door, he retired, shut the door, performed no mesmeric passes, but tried to forget her, walked away from the door, busied himself with something else, and even walked into a third room; and on returning in less than ten minutes found the girl in her usual sleep-waking condition. The extreme susceptibility of many of these 'sensitive' subjects further accounts for their being affected (without any intentional deceit) by physical impressions which are quite imperceptible to others: such as slight differences in temperature, when two coins are presented to them, of which one has been held in the hand of the mesmeriser; or two wine-glasses of water, into one of which he has dipped his finger for a short time. But the belief that he has transmitted his influence in any mode is quite sufficient to produce the result; as was shown in an amusing case recorded by M. Bertrand, whose treatise on *Animal Magnetism* (Paris, 1826) is, by far, the most philo-

* Mr. Lewis was challenged to this test-experiment, in consequence of his assertion that he had repeatedly induced the mesmeric sleep, and had directed the operations of his somnambules, by the exertion of his 'silent will,' from a distance. His utter failure to produce either result, however, under the scrutiny of sceptical enquirers, obviously discredits all his previous statements; except to such as are ready to accept without question the slenderest evidence of the greatest marvels.

sophical work extant on the subject. Having occasion to go a journey of a hundred leagues, leaving a female somnambule under the treatment of one of his friends, M. Bertrand sent him a magnetised letter, which he requested him to place on the stomach of the patient, who had been led to anticipate the expected results; mesmeric sleep, with the customary phenomena, supervened. He then wrote another letter which he did *not* magnetise, and sent it to her in the same manner, and with the same intimation. She again fell into the mesmeric sleep, which was attributed to the letter having been unintentionally impregnated by M. Bertrand with the mesmeric fluid while he was writing it. Desiring to test the matter still further, he caused one of his friends to write a similar letter, imitating his handwriting so closely that those who received it should believe it to be his;—the same effect was once more produced.

And so it was with the large number of experiments that were made within my own knowledge during the twenty years' attention that I gave to this subject, with a view to test the mesmeriser's power of inducing any of the phenomena of this state without the patient's consciousness. Successes, it is true, were not unfrequent; but these almost invariably occurred when the experiments were made under conditions to which the parties had become habituated, as in the case of Dr. Noble's friend. For his performances were so continually being repeated to satisfy the curiosity of visitors, that Dr. Noble's call at his house would have been sufficient to excite, on the part of the 'subject,' the expectancy that would have thrown her into the sleep. But when such expectancy was carefully guarded against, the result was so constantly negative, as—I will not say to *disprove* the existence of any special mesmeric force,—but to neutralise completely the affirmative value of the evidence adduced to *prove* it. For I think you must now agree with me that if 'expectancy' alone is competent to produce the results, as admitted by the most intelligent mesmerisers, nothing but the most rigid exclusion of such expectancy can afford the least ground for the assumption of any other agency. And my own prolonged study of the subject fur-

ther justifies me in taking the position, that it is only when the enquiry is directed, and its results recorded, by *sceptical experts*, that such results have the least claim to scientific value. The disposition to overlook sources of fallacy, to magnify trivialities into marvels, to construct circumstantial myths (as in the case of Miss Martineau's J— and Lord Morpeth) on the slightest foundation of fact, and to allow themselves to be imposed upon by cunning cheats, have been so constantly exhibited by even the most honest believers in the 'occult' power of Mesmerism, as—not only in my own opinion, but in that of my very able allies in this enquiry—to deprive the unconfirmed testimony of any number of such believers, in regard to matters lying beyond scientific experience, of all claim to acceptance. In fact, the positions taken in regard to Mesmerism by my friend Dr. Noble, as far back as 1845,* and more fully developed by myself a few years later on the basis of Mr. Braid's experiments, and of my own physiological and psychological studies,† have not only in our own judgment, but by the general verdict of the medical and scientific world, been fully confirmed by the subsequent course of events, the history of which I shall now proceed to sketch.

It was asserted, about thirty years ago, by Baron von Reichenbach, whose researches on the chemistry of the hydrocarbons constitute the foundation of our present knowledge of paraffin and its allied products of the distillation of coal, that he had found certain 'sensitive' subjects so peculiarly affected by the neighborhood of magnets or crystals, as to justify the assumption of a special polar force, which he termed *Odyle*, allied to, but not identical with, magnetism; present in all material substances, though generally in a less degree than in magnets and crystals; but called into energetic activity by any kind of physical or chemical change, and, therefore, especially abundant in the human body. Of the existence of this Odylic force, which he identified with the 'Animal Magnet-

* *British and Foreign Medical Review*, vol. xix.

† *Principles of Human Physiology*, 4th edition, 1853; and *Quarterly Review*, October 1853.

ism' of Mesmer, he found what he maintained to be adequate evidence in the peculiar sensations and attractions experienced by his 'sensitives' when in the neighborhood either of magnets or crystals, or of human beings specially charged with it. After a magnet had been repeatedly drawn along the arm of one of these subjects, she would feel a pricking, streaming, or shooting sensation; she would smell odors proceeding from it; or she would see a small volcano of flame issuing from its poles when gazing at them, even in broad daylight. As in the magnetic sleep light is often seen by the somnambule to issue from the operator's fingers, so the odylic light was discerned in the dark by Von Reichenbach's 'sensitives,' issuing not only from the hands, but from the head, eyes, and mouth of powerful generators of this force. One individual in particular was so peculiarly sensitive, that she saw (in the dark) sparks and flames issuing from ordinary nails and hooks in a wall. It was further affirmed that certain of these 'sensitives' found their hands so powerfully attracted by magnets or crystals, as to be irresistibly drawn towards them; and thus that if the attracting object were forcibly drawn away, not only the hand, but the whole body of the 'sensitive' was dragged after it. Another set of facts was adduced to prove the special relation of Odyle to terrestrial Magnetism—namely, that many 'sensitives' cannot sleep in beds which lie across the magnetic meridian; a position at right angles to it being to some quite intolerable.

Von Reichenbach's doctrine came before the British public under the authority of the late Dr. Gregory, the Professor of Chemistry in the University of Edinburgh; who went so far as to affirm that 'by a laborious and beautiful investigation, Reichenbach had demonstrated the existence of a force, influence, or imponderable fluid—whatever name be given to it—which is distinct from all the known forces, influences, or imponderable fluids, such as heat, light, electricity, magnetism, and from the attractions, such as gravitation, or chemical attraction.' It at once became apparent, however, to experienced Physicians conversant with the proteiform manifestations of that excitable, nervous temperament, of

which I have already had to speak, that all these sensations were of the kind which the physiologist terms 'subjective'; the state of the sensorium on which they immediately depend being the resultant, not of physical impressions made by external agencies upon the organs of sense, but of cerebral changes connected with the ideas with which the minds of the 'sensitives' had come to be 'possessed.' The very fact that no manifestation of the supposed force could be obtained except through a conscious Human organism, should have been quite sufficient to suggest to any philosophic investigator that he had to do not with a new physical force, but with a peculiar phase of physical action, by no means unfamiliar to those who had previously studied the influence of the Mind upon the Body. And the fact which Von Reichenbach himself was honest enough to admit—that when a magnet was poised in a delicate balance, and the hand of a 'sensitive' was placed above or beneath it, the magnet was never drawn towards the hand—ought to have convinced him that the force which attracted the 'sensitive's' hand to the magnet has nothing in common with physical attractions, whose action is invariably *reciprocal*; but that it was the product of her own conviction that she *must* thus approximate it. So 'possessed' was he, however, by his pseudo-scientific conception, that the true significance of this fact entirely escaped him; and although he considered that he had taken adequate precautions to exclude the conveyance of any suggestion of which his 'sensitives' should be conscious, he never tried the one test which would have been the *experimentum crucis* in regard to all the supposed influences of magnets—that of using *electro-magnets*, which could be 'made' and 'unmade' by completing or breaking the electric circuit, without any indication being given to the 'sensitive' of this change of its conditions. And the same remark applies to the more recent statement of Lord Lindsay, as to Mr. Home's recognition of the position of a permanent magnet in a totally darkened room; the value of this solitary fact, for which there are plenty of ways of accounting, never having been tested by the use of an electro-magnet, whose active or pas-

sive condition should be entirely unknown, not only to Mr. Home but to every person present.

That 'sensitives' like Von Reichenbach's, in so far as they are not intentional deceivers (which many hysterical subjects are constitutionally prone to be), can feel, see, or smell anything that they were led to believe that they *would* feel, see, or smell, was soon proved by the experimental enquiries of Mr. Braid, many of which I myself witnessed. He found that not only in hysterical girls, but in many men and women 'of a highly concentrative and imaginative turn of mind,' though otherwise in ordinary health, it was sufficient to fix the attention on any particular form of *expectancy*,—such as pricking, streaming, heat, cold, or other feelings, in any part of the body over which a magnet was being drawn; luminous emanations from the poles of a magnet in the dark, in some cases even in full daylight; or the attraction of a magnet or crystal held within reach of the hand,—for that expectancy to be fully realised. And, conversely, the same sensations were equally produced when the subjects of them were led to *believe* that the same agency was being employed, although nothing whatever was really done; the same flames being seen when the magnet was concealed by shutting it in a box, or even when it was carried out of the room, without the knowledge of the subject; and the attraction of the magnet for the hand being entirely governed by the idea previously suggested, positive or negative results being thus obtained with either pole, as Mr. Braid might direct. 'I know,' he says of one of his subjects, 'that this lady was incapable of trying to deceive myself or others present; but she was self-deceived and spell-bound by the predominance of a preconceived idea, and was not less surprised at the varying powers of the instrument than were others who witnessed the results.'*

One of Mr. Braid's best 'subjects' was a gentleman residing in Manchester, well known for his high intellectual culture, great general ability, and strict probity. He had such a remarkable power of voluntary abstraction, as to be able at any

time to induce in himself a state akin to profound reverie (corresponding to what has been since most inappropriately called the 'biological'), in which he became so completely 'possessed' by any idea strongly enforced upon him, that his whole state of feeling and action was dominated by it. Thus it was sufficient for him to place his hand upon the table and fix his attention upon it for half a minute, to be entirely unable to withdraw it, if assured in a determined tone that he *could not* do so. When his gaze had been steadily directed for a short time to the poles of a magnet, he could be brought to see flames issuing from them of any form or color that Mr. Braid chose to name. And when desired to place his hand upon one of the poles, and to fix his attention for a brief period upon it, the peremptory assurance that he *could not* detach it was sufficient to hold it there with such tenacity, that I saw Mr. Braid drag him round the room in a way that reminded me of George Cruikshank's amusing illustration of the German fairy story of the Golden Goose. The attraction was dissolved by Mr. Braid's loud cheery 'All right, man,' which brought the subject back to his normal condition, as suddenly as the attraction of a powerful electro-magnet for a heavy mass of iron ceases when the circuit is broken.

Similar experiments to these (which I first witnessed about thirty years ago) have been since repeated over and over again upon great numbers of persons, in whom a corresponding state can be induced by prolonged fixation of the vision on a small object held in the hand. It was in the year 1850 that a new manifestation of the supposed 'occult' power first attracted public attention, through the exhibition of it by a couple of itinerant Americans, who styled themselves 'professors' of a new art which they termed *Electro-Biology*; asserting that by an influence of which the secret was only known to themselves, but which was partly derived from a little disk of zinc or copper held in the hand of the 'subject' and steadily gazed on by him, they could subjugate the most determined will, paralyse the strongest muscles, pervert the evidence of the senses, destroy the memory of even the most familiar things or of the most recent occurrences,

* *The Power of the Mind over the Body*, 1846, p. 20.

induce obedience to any command, or make the individual believe himself transformed into anyone else—all this, and much more, being done while he was still wide awake. They soon attracted large assemblages to witness their performances, and seldom failed to elicit some of the most remarkable phenomena from entire strangers to them, whose honesty could not be reasonably called in question. In place of a few peculiarly susceptible 'subjects' not always to be met with, and open to suspicion on various grounds, those who took up this practice found in almost every circle some individuals in whom the 'biological' state could be self-induced by the steady direction of their eyes to one point, at the ordinary reading distance, for a period usually varying from about five to twenty minutes; a much shorter time generally sufficing in cases in which the practice has been frequently repeated. In this condition, the whole course of thought is directed by external suggestions, the subject's own control over it being altogether suspended. Yet he differs from the somnambulist in being *awake*; that is, he has generally the use of all his senses, and usually, though not always, preserves a distinct recollection of all that has taken place. There is, in fact, a gradational transition from the 'biological' to the 'mesmeric' state; just as there is a passage from the state of profound reverie or 'day-dreaming' to that of ordinary sleep. All its strange phenomena are referrible to one simple principle—the possession of the mind by a *dominant idea*, from which, however absurd it may be, the subject cannot free himself by bringing it to the test of actual experience, because the suspension of his self-directing power prevents him from correcting his ideational state by comparing it with external realities; this suspension being often as complete as it is in dreaming, so that though the senses are awake, they cannot be turned to account. But it may exist in regard to one sense only, the impressions made on others being truly represented to the mind. Thus I have seen instances in which a 'biologised' subject could be made to believe himself to be *tasting* anything which the operator might assure him that he *would* taste—such as milk, coffee, wine, or porter—when drinking

a glass of pure water, though he was instantly disabused by *looking* at the liquid; whilst another would *see* milk or coffee, wine or porter, as he was directed, but would instantly set himself right when he *tasted* the liquid. Nothing can be more amusing than to experiment upon a subject who has no misgivings of this kind, but whose perceptions are altogether under the direction of the ideas impressed upon him. He may be made to exhibit all the manifestations of delight which would be called forth by the viands or liquors of which he may be most fond, and these may be turned in a moment into expressions of the strongest disgust, by simply giving the word which shall (ideally) change it into something he detests. Or if, when he believes himself to be drinking a cup of tea or coffee, he be made to believe that it is very hot, nothing will induce him to take more than a sip at a time; yet a moment afterwards he will be ready to swallow the whole in gulps, if assured that the liquid is quite cool. Tell him, again, that his seat is growing hot under him, and that he will not be able to remain long upon it, and he will fidget uneasily for some time, and at last start up with all the indications of having found the heat no longer bearable. Whilst he is firmly grasping a stick in his hand, let him be assured that it will burn him if he continue to hold it, or that it is becoming so heavy that he can no longer sustain it, and he will presently drop it with gestures conformable in each case to the idea.

It may, of course, be said that what I have presented to you as real phenomena are only simulated; and as there would be nothing difficult in such simulation, the supposition is of course admissible. But they are so perfectly conformable to the known principles of Mental action, that there is no justification for the suspicion of deceit, when they are presented by persons in whose good faith we have reasonable grounds of confidence. For everyone must be conscious of occasional mistakes as to what he supposes himself to have seen or heard, which he can trace to a previous expectancy. Of this I can give you a very striking illustration in a case narrated by Dr. Tuke. A lady, whose mind had been a good deal occupied on the subject of drinking-foun-

tains, was walking from Penryn to Falmouth, and thought she saw in the road a newly-erected fountain, with the inscription, 'If any man thirst, let him come hither and drink.' Some time afterwards, on mentioning the fact with pleasure to the daughters of a gentleman whom she supposed to have erected it, she was greatly surprised to learn from them that no such drinking-fountain existed; and on subsequently repairing to the spot, she found nothing but a few stones, which constituted the foundation on which her expectant imagination had built an ideal superstructure.

The same may be said with regard to the control exercised over the muscular movements of the Biologised 'subject,' by the persuasion that he *must* or that he *cannot* perform a particular action. His hands being placed in contact with one another, he is assured that he cannot separate them, and they remain as if firmly glued together, in spite of all his apparent efforts to draw them apart. Or, a hand being held up before him, he is assured that he cannot succeed in striking it; and not only does all his power seem inadequate to the performance of this simple action, but it actually is so as long as he remains convinced of its entire impossibility. So I have seen a strong man chained down to his chair, prevented from stepping over a stick on the floor, or obliged to remain almost doubled upon himself in a stooping position, by the assurance that he *could* not move. On the other hand, an extraordinary power may be called forth in any set of muscles—as in hypnotised subjects—by the assurance that the action to be performed by them may be executed with the greatest facility. This, again, is quite conformable to ordinary experience; the assurance that we *can* perform some feat of strength or dexterity nerving us to the effort; whilst our power is weakened by our own doubts of success, still more by the unfavorable impression produced by a confident prediction of failure. It is only needed for the mind to become completely 'possessed' by the one or the other conviction, for it to produce the bodily results of this kind which I have over and over again witnessed.

Now the phenomena of the 'biological' condition seem to me of peculiar

significance, in relation to a large class of those which are claimed as manifestations of a supposed 'spiritual' agency. When a number of persons of that 'concentrative and imaginative turn of mind' which predisposes them to the 'biological' condition, sit for a couple of hours (especially if in the dark) with the expectation of some extraordinary occurrence, such as the rising and floating in the air, either of the human body, or of chairs or tables, without any physical agency; the crawling of live lobsters over their persons; the contact of the hands, the sound of the voices, or the visible luminous shapes,* of their departed friends; it is perfectly conformable to scientific probability that they should pass more or less completely (like Reichenbach's 'sensitives') into a state which is neither waking nor sleeping but between the two, in which they see, hear, or feel by touch, anything they have been led to expect will present itself. And the accordance of their testimony, in regard to such occurrences, is only such as is produced by the community of the dominant idea with which they are all 'possessed,' a community of which history furnishes any amount of strangely-varied examples. And thus it becomes obvious that the testimony of a single cool-headed sceptic, who asserts that nothing extraordinary has really occurred, should be accepted as more trustworthy than that of any number of believers, who have, as it were, created the sensorial result by their anticipation of it.

I have now to show you that the like expectancy can also produce *movements* of various kinds, through the instrumentality of the nervo-muscular apparatus, without the least consciousness on the part of its subject of his being himself the instrument of their performance; a physiological fact which is the key to the whole mystery of table-turning and table-talking. I very well remember the prevalence in my school-boy days of a belief that, when a ring, a button, or any other small body, suspended by a string over the end of the finger, was brought

* I put aside the question of fraud, to which recourse has doubtless often been had for the production of these phenomena; being satisfied that they are often genuinely 'subjective.'

near the outside or inside of a glass-tumbler, it would strike the hour of the day against its surface; and the experiment certainly succeeded in the hands of several of my schoolfellows, who tried it in all good faith, getting up in the middle of the night to test it, in entire ignorance, as they declared, of the real time. But, as was pointed out by M. Chevreul, who investigated this subject in a truly scientific spirit more than forty years ago,* it is impossible by any voluntary effort to keep the hand absolutely still for a length of time in the position required; an involuntary tremulousness is always observable in the suspended body, and if the attention be fixed on it with the expectation that its vibrations will take a definite direction, they are very likely to do so. But their persistence in that direction is found to last only so long as they are guided by the sight of the operator, at once and entirely losing their constancy if he closes or turns away his eyes. Thus it became obvious that, in the striking of the hour, the influence which determines the number of strokes is really the knowledge or suspicion present to the *mind* of the operator, which involuntarily and unconsciously directs the action of his muscles; and the same *rationale* was applied by M. Chevreul to other cases in which this *pendule explorateur* (the use of which can be traced back to a very remote date) has been appealed to for answers to questions of very diverse character.

When, however, 'Odyle' came to the front, and the world of curious but unscientific enquirers was again 'possessed' by the idea of an unknown and mysterious agency, capable of manifesting itself in an unlimited variety of ways, the *pendule explorateur* was brought into vogue, under the name of *odometer*, by Dr. Herbert Mayo,† who investigated its action with a great show of scientific precision; starting, however, with the foregone conclusion that its oscillations were directed by the hypothetical 'odyle,' and altogether ignoring the mental participation of the operator, whom he supposed to be as passive as a thermometer

or a balance. By a series of elaborate experiments, he convinced himself that the direction and extent of the oscillations could be altered, either by a change in the nature of the substances placed beneath the 'odometer,' or by the contact of the hand of a person of the opposite sex, or even of the experimenter's other hand, with that from which it was suspended. And he gradually reduced his result to a series of definite laws, which he regarded as having the same constancy as those of physics or chemistry. Unfortunately, however, other experimenters, who worked out the enquiry with similar perseverance and good faith, arrived at such different results, that it soon came to be obvious that what astronomical observers call the 'personal equation' of the individual has a very large share in determining them. A very intelligent medical friend of my own, then residing abroad, wrote me long letters full of the detailed results of his own enquiries, on which he was anxious for my opinion. My reply was simply, 'Shut your eyes, or turn them away, and let some one else watch the oscillations under the conditions you have specified, and record their results; you will find, if I do not mistake, that they will then show an entire *want* of the constancy you have hitherto observed.' His next letter informed me that such proved to be the case; so that he had come entirely to agree with me as to the dependence of the previous uniformity of his results on his own expectancy.

A curious variation of the 'odometer' was introduced by Mr. Rutter, the manager of the gas works at Brighton, under the name of 'Magnetometer,' which was simply a gallows-shaped frame, mounted on a solid base, having a metallic ball suspended from its free extremity. When the finger was kept for a short time in contact with this frame, the ball began to oscillate, usually in some definite direction, changing that direction with any change of circumstances, after the manner of Dr. Mayo's 'odometer.' To many persons, as to Mr. Rutter himself, it appeared impossible that these oscillations could have their origin in any movement of the operator; but everyone who knows how difficult it is to prevent vibrations in the supporting framework of a microscope or telescope,

* See his letters to M. Ampère in the *Revue des Deux Mondes*, Mai, 1833.

† *The Truths contained in Popular Superstitions*, 1851.

and who recognises that the construction of the 'Magnetometer' is exactly such as will enable the smallest amount of imparted motion to produce the greatest sensible effect, will be prepared to expect that the oscillations of the suspended ball are as much maintained and guided by the expectancy of the operator, as they are when it is hung directly from his own finger. Experiment soon proved this to be the case; for it was found that the constancy of the vibrations entirely depended upon the operator's watching their direction, either by his own eyes or by those of someone else; and further, that when such a change was made *without his knowledge* in the conditions of the experiment, as *ought*, theoretically, to alter the direction of the oscillations, no such alteration took place.

A very amusing *exposé* of the mystery of the 'Magnetometer' resulted from its application by Dr. Madden, a homœopathic physician at Brighton, to test the virtues of his 'globules,' as to which he had, of course, some pre-formed conclusions of his own. The results of his first experiments entirely corresponded with his ideas of what they ought to be; for when a globule of one medicine was taken into his disengaged hand, the suspended ball oscillated longitudinally; and when this globule was changed for another of opposite virtues, the direction of the oscillations became transverse. Another homœopathic physician, however, was going through a similar course of experiments; and his results, while conformable to his own notions of the virtues of the globules, were by no means accordant with those of Dr. Madden. The latter was thus led to re-investigate the matter with a precaution he had omitted in the first instance; namely, that the globules should be placed in his hand by another person, without any hint being given him of their nature. From the moment he began to work upon this plan, the whole aspect of the subject was changed; globules that produced longitudinal oscillations at one time, gave transverse at another; whilst globules of the most opposite remedial virtues gave no sign of difference. And thus he was soon led to the conviction, which he avowed with a candor very creditable to him, that the system he had built up

had no better foundation than his own anticipation of what the results of each experiment should be; that anticipation expressing itself unconsciously in involuntary and imperceptible movements of his finger, which communicated a rhythmic vibration to the framework when the oscillations of the ball suspended from it were watched.

Thus, by the investigations of scientific experts who were alive to the sources of fallacy which the introduction of the *human* element always brings into play, the hypothesis of Odylic force was proved to be completely baseless; the phenomena which were supposed to indicate its existence being traceable to the Physiological conditions of the Human organisms, through whose instrumentality they were manifested. The principle that the state of 'expectant attention' is capable of giving rise either to sensations or to involuntary movements according to the nature of the expectancy, had been previously recognised in Physiological science, and was not invented for the occasion; but the phenomena I have been describing to you are among its most 'pregnant instances.'

The same principle furnishes what I believe to be the true scientific explanation of the supposed mystery of the Divining Rod, often used where water is scarce for the discovery of springs, and in mining districts for the detection of metallic veins. This rod is a forked twig, shaped like the letter Y, hazel being usually preferred; and the diviner walks over the ground to be explored, firmly grasping its two prongs with his hands, in such a position that its stem points forwards. After a time the end of the stem points downwards, often, it is said, with a sort of writhing or struggling motion, especially when the fork is tightly grasped; and sometimes it even turns backwards, so as to point towards instead of away from the body of the diviner. Now there is a very large body of apparently reliable testimony, that when the ground has been opened in situations thus indicated, either water-springs or metallic veins have been found beneath; and it is quite certain that the existence of such a power is a matter of unquestioning faith on the part of large numbers of intelligent persons who have

witnessed what they believe to be its genuine manifestations.* This subject, however, was carefully enquired into more than forty years ago by MM. Chevreul and Biot; and their experimental conclusions anticipated those to which I was myself led in ignorance of them by physiological reasoning. They found that the forked twig cannot be firmly grasped for a quarter of an hour or more in the regulation position, without the induction of a state of muscular tension, which at last discharges itself in movement; and this acts on the prongs of the fork in such a manner as to cause its stem to point, either upwards, downwards, or to one side. The occasion of this discharge and the direction of the movement are greatly influenced, like the oscillations of bodies suspended from the finger, by *expectancy* on the part of the operator; so that if he has any suspicion or surmise as to the 'whereabouts' of the object of his search, an involuntary and unconscious action of his muscles causes the point of the rod to dip over it.

Again, since not one individual in forty, in the localities in which the virtues of the divining rod are still held as an article of faith, is found to obtain any results from its use, it becomes obvious that its movements must be due, not to any physical agency directly affecting the rod, but to some influence exerted through its holder. And that this influence is his *expectation* of the result, may, I think, be pretty confidently affirmed. For it has been clearly shown, by careful and repeated experiments, that, while the rod dips when the 'diviner' knows or believes he is over a water-spring or a metallic vein, the results are uncertain, contradictory, or simply negative, when he is blindfolded, so as not to be aware precisely where he is. The following is a striking case of this kind that has been lately brought to my knowledge:

A friend of mine (says Dr. Beard, † an aged clergyman, of thorough integrity and fairness, has for many years—the larger part of his natural life, I believe—enjoyed the reputa-

tion of being especially skilled in the finding of places to dig wells, by means of a divining rod of witch hazel, or the fresh branches of apple or other trees. His fame has spread far, and the accounts that are given by him and of him are to those who think human testimony is worth anything overwhelmingly convincing. He consented to allow me to experiment with him. I found that only a few moments were required to prove that his fancied gift was a delusion, and could be explained wholly by unconscious muscular motion, the result of expectancy and coincidence. In his own yard there was known to be a stream of water running through a small pipe a few feet below the surface. Marching over and near this, the rod continually pointed strongly downwards, and several times turned clear over. These places I marked, blindfolded him, marched him about until he knew not where he was, and took him over the same ground over and over again; and although the rod went down a number of times, *it did not once point to or near the places previously indicated.*

I very well remember having heard, some 35 years ago, from Mr. Dilke (the grandfather of the present Sir Charles) of an experiment of this kind which he had himself made upon a young Portuguese, who had come to him with a letter of introduction, describing the bearer of it as possessing a most remarkable power of finding, by means of the divining rod, metals concealed from view. Mr. Dilke's family being at a summer residence in the country, his plate had all been sent to his chambers in the Adelphi, where he was visited by the Portuguese youth; to whom he said 'Go about the room with your rod, and try if you can find any mass of metal.' The youth did so; and his rod dipped over a large standing desk, in which Mr. D.'s plate had been temporarily lodged. Seeing, however, that there were circumstances which might reasonably suggest this guess, Mr. Dilke asked the youth if he was willing to allow his divining power to be tested under conditions which should exclude all such suggestion; and having received a ready assent, he took his measures accordingly. Taking his plate-box down to his country residence, he secretly buried it just beneath the soil in a newly ploughed field; selecting a spot which he could identify by cross-bearings of conspicuous trees, and getting a plough drawn again over its surface, so as to make this correspond precisely with that of the rest of the field. The young diviner was then summoned from Lon-

* I have lately received a pamphlet from an Engineer in the United States, giving most circumstantial details of success thus obtained within his own experience.

† *Review of Medicine and Pharmacy* (New York), Sept. 1875.

don, and challenged to find beneath the soil of this field the very same plate which he had previously detected in Mr. Dilke's desk at the Adelphi; but having nothing whatever to guide him even to a guess, he was completely at fault. Mr. Dilke's impression was that he was not an impostor, but a sincere believer in his own power, as the 'dowsers' of mining districts seem unquestionably to be. The test of blindfolding the diviner, and then leading him about in different directions so as to put him completely at fault in regard to his locality, is one that can be very readily applied, when the diviner is acting in good faith; but, as I shall show you in the next lecture, it requires very special precautions to blindfold a person who is determined to see; and in some of the cases which seem to have stood this test, it seems not improbable that vision was not altogether precluded.

An additional reason for attributing the action of the divining rod to the muscular movements called forth by a state of expectancy (perhaps not always consciously entertained) on the part of the performer, seems to me to be furnished by the diversity of the powers that have been attributed to it; such as that of identifying murderers and indicating the direction of their flight, discovering the lost boundaries of lands, detecting the birth-place and parentage of foundlings, &c. The older writers do not in the least call in question the reality of the powers of the hazel fork, but learnedly discuss whether they are due to natural or to diabolic agency. When in the last century the phenomena of Electricity and Magnetism became objects of scientific study, but had not yet been comprehended under the grasp of law, it was natural that those of the divining rod should be referred to agencies so convenient, which seemed ready to account for anything otherwise unaccountable. But since Physicists and Physiologists have come to agree that the moving power is furnished by nothing else than the muscles of the diviner, the only question that remains is—what calls forth its exercise? And the conclusive evidence I have given you that the definite oscillations of suspended bodies depend on involuntary movements unconsciously determined by

states of *expectancy*, clearly points to the conclusion that we have in the supposed mystery of the divining rod only another case of the same kind. It is well known that persons who are conversant with the geological structure of a district are often able to indicate with considerable certainty in what spot, and at what depth, water will be found; and men of less scientific knowledge, but of considerable practical experience, frequently arrive at a true conclusion on this point, without being able to assign reasons for their opinions. Exactly the same may be said in regard to the mineral structure of a mining district; the course of a metallic vein being often correctly indicated by the shrewd guess of an observant workman, where the scientific reasoning of the mining engineer altogether fails. It is an experience we are continually encountering in other walks of life, that particular persons are guided, some apparently by an original and others by an acquired intuition, to conclusions for which they can give no adequate reasons, but which subsequent events prove to have been correct; and I look upon the divining rod in its various applications as only a peculiar method of giving expression to results worked out by an automatic process of this kind, even before they rise to distinct mental consciousness. Various other methods of divination that seem to be practised in perfectly good faith—such, for example, as the Bible and key test, used for the discovery of stolen property—are probably to be attributed to the same agency; the cerebral traces of past occurrences supplying materials for the automatic evolution of a result (as they unquestionably do in dreams) when the occurrences themselves have been forgotten.

Many of the cases of so-called thought-reading are clearly of the same kind; the communication being made by unconscious muscular action on the part of one person, and automatically interpreted by the other—as in the following instance. Several persons being assembled, one of them leaves the room, and during his* absence some object is hidden. On the absentee's re-entrance, two persons who know the hiding place stand

* The experiment succeeds equally well, or perhaps better, with ladies.

one on either side of him, and establish some personal contact with him; one method being for each to place a finger on his shoulder, and another for each to place a hand on his body, one on the front and the other on the back. He walks about the room between the two, and generally succeeds before long in finding the hidden object; being led towards it (as careful observation and experiment have fully proved (by the involuntary muscular action of his unconscious guides, one or the other of them pressing more heavily when the object is on his side, and the finder as involuntarily turning towards that side.

These and other curious results of recent enquiry, while strictly conformable to Physiological principles, greatly extend our knowledge of the modes in which states of mind express themselves unconsciously and involuntarily in muscular action; and I dwell on them the more, because they seem to me to afford the key (as I shall explain in my second lecture) to some of these phenomena of Spiritualistic divination, which have been most perplexing to many who have come in contact with them, without being disposed to accept the spiritualistic interpretation of them.—*Fraser's Magazine*.

THE POET IN THE CITY.

BY C. C. FRASER-TYTTLER.

THE Poet stood in the sombre town,
And spake to his heart, and said,—
"O weary prison, devised by man!
O seasonless place, and dead!"
His heart was sad, for afar he heard
The sound of the Spring's light tread.

He thought he saw in the pearly East
The pale March sun arise,
The happy housewife beneath the thatch,
With hand above her eyes,
Look out to the cawing rooks, that built
So near to the quiet skies.

Out of the smoke, and noise, and sin,
The heart of the Poet cried,—
"O God! but to be thy laborer there,
On the gentle hill's green side?
To leave the struggle of want and wealth,
And the battle of lust and pride!"

He bent his ear, and he heard afar
The growing of tender things,
And his heart broke forth with the travailing earth,
And shook with the tremulous wings.
Of sweet brown birds, that had never known
The dirge of the city's sins.

And later, when all the earth was green
As the Garden of the Lord,
Primroses opening their innocent face,
Cowslips scattered abroad;
Blue-bells mimicking summer skies,
And the song of the thrush outpoured,—

The changeless days were so sad to him,
 That the Poet's heart beat strong,
 And he struggled as some poor caged lark,
 And he cried, "How long, how long?
 I have missed a Spring I can never see,
 And the singing of birds is gone!"

But when the time of the roses came,
 And the nightingale hushed her lay,
 The Poet, still in the dusty town,
 Went quietly on his way,—
 A poorer poet by just one Spring,
 And a richer man by one suffering.

The Spectator.

YOUNG MUSGRAVE.

BY MRS. OLIPHANT.

CHAPTER IV.

AFTER THE SILENCE OF YEARS.

"COME in," said the Squire. He was sitting among his books, working with such a genuine sense of importance as was strange to see. Mary did not know that she thought anything in the world (except this present mission of hers) so important as he thought his search into the heraldic fortunes of the family. He was in full cry after a certain augmentation which had got into the Musgrave arms no one well knew how. It was only the Musgraves of Penninghame who bore this distinction, and how did they come by it? It appeared in the thirteenth century—in the age of the Crusades. Was it in recollection of some feat of a Crusader?—that was the question. He put down his pen and laid one open book upon another as she came in. He had no consciousness in his mind to make him critical or inquiring. He did not observe her paleness nor the special glitter in her eyes. "I am busy," he said, "so you must be brief. I think I have got hold of that 'chief' at last. After years of search it is exciting to find the first trace of it; but perhaps it is best to wait till I have verified my guesses—they are still not much more than guesses. What a satisfaction it will be when all is clear—"

"I am glad you are to have this satisfaction, papa."

"Yes, I know you take little interest in it for itself. Ladies seldom do; though

I can't tell why, for heraldry ought to be an interesting science to them and quite within their reach. Nothing has happened about the dinner, I hope? I notice that is your general subject when you come into my room so late. Law business in the morning, dinner in the evening—a very good distribution. But I want a good dinner to-night, my dear, to celebrate my success."

"It is not about dinner. Father, we have been living a very quiet life for many years."

"Thank Heaven!" said the old man. "Yes, a quiet life. A man of my age is entitled to it, Mary. I never shrank from exertion in my time, nor do I now, as this will testify." He laid his hand with a genial complaisance upon the half-written paper that lay before him. Then he said with a smile, "But make haste, my dear. There is still an hour before dinner and I am in the spirit of my work. We need not occupy our time, you and I, with general remarks."

"I did not mean it for a general remark," she said with a tremble in her voice. "It is that I have something important—very important to speak of, and I don't know how to begin."

"Important, very important!" he said, with the indulgence of jocular superiority for a child's undue gravity. "I know what these important matters are. Some poaching story of Brown that you don't know how to manage, or quarrel in the village? Bring them to me, but bring them to-morrow, Mary, when my

mind is at rest—I cannot give my attention now.”

“It is neither poaching nor quarrelling,” she said. “I can manage the village. There are other things. Father, though we have been quiet for so many years, it is not because there has been nothing to think of—no seeds of trouble in the past—no anxieties—”

“I don’t know what you are thinking of,” he said, pettishly. “No anxieties! A man has them as long as he is in the world. We are mortal. Seeds of trouble? I have told you, Mary, that you may spare me general remarks.”

“Oh, nothing was further from my mind than general remarks,” she cried. “I don’t know how to speak. Father—look here—read it; it will tell its own story best. This is what, after the silence of years, I have received to-day.”

“The silence of years!” said the Squire. He had to fumble for his spectacles, which he had taken off, though he carefully restrained himself from betraying any special interest. A red color had mounted to his face. Perhaps his mind did not go so far as to divine what it was; but still a sudden glimmering, like the tremble of pale light before the dawn, had come into his mind.

And this was the thunderbolt that suddenly fell upon him in his quietness after the silence of years:—

“MY DEAR SISTER MARY,—This will be given to you by my little daughter Lilius. The sight of my handwriting and of the children will be enough to startle you, so that I need not try to soften the shock which you must have already received. I claim from my father shelter for my children. Their mother is dead; so are the others of my family whose very names will never be known to my nearest relations. Never mind that now. I am a man both sick and sorry, worn by the world, lonely, and not much better than an adventurer. These children are the last of our race, and the boy, however reluctant you may be, is my father’s heir. I claim for them the shelter of the family roof. I have no home to give them, nor can I give them the care they require. Mary, you are a good woman. You are blameless one way or another. I charge you with my children. God do so to you and more

also, according as you deal with them. Some time or other before I die I will drag myself home. That you may be sure of, unless God cuts short my life by the way, of which, if He will, I shall not complain. Your brother,

“JOHN MUSGRAVE.”

This was the letter which the Squire placed upon his mouldy books, over the statement he had been writing. He did not speak, but read it steadily to the end, betraying no emotion except by the glow of color that rose over his weather-beaten face. Who that has sat by, anxious, watching the effect of such a letter, needs to be told with what intense observation Mary Musgrave noted the signs of that rigid control kept upon himself—the tight clutch of one hand upon the table, the tremor of the other which held the letter? But the Squire said nothing, not even when he had visibly come to the end. He held it before him still for some minutes; then he began to fold it elaborately, but said nothing still. The shadow of his head with its falling locks of white hair shook a little upon the wall. There is a peculiar tremble which shows the very severity of restraint, and this was of that kind.

“Father! have you nothing to say?”

“I thought it was a subject put aside, not to be mentioned between us,” he said. “I may be wrong—if I am wrong you can inform me—but I supposed this and all cognate subjects to be closed between us—”

“How can this be closed? I have ceased to importune you, but this is a new opening. And there is more than the letter—the children—”

“Ah!” He gave a slight cry. If he could it would have been an exclamation of scorn, but this was too much for him; the cry was sharp with impatient pain.

“I could not keep *them* a secret from you, father.”

“I hate secrets,” he said; “nevertheless there are few families in which they are not necessary.” When he had said this he pushed the letter towards her, drew forward his heraldry books, and took his pen in his hand.

“Will you say nothing to me?” she cried. “Will you give me no answer? What am I to do?”

“Do! It seems to me quite an un-

necessary question. It is a long time since I have given up exercising any control over you, Mary," he said.

"But, father, have a little pity. The house is not mine to do as I like with."

"It is unfortunate," he said, with a cold precision which made it doubtful whether he spoke satirically or in earnest. "But that is not my fault. You cannot expect me to make place voluntarily for another; and even if I did, as you are a woman, it would be of very little use to you. You cannot be the heir——"

"And this boy is!" she said, with a gesture of appeal.

Mr. Musgrave said nothing. He shook his head impatiently, pushed the letter to her with an energy that flung it into her lap, and resumed his writing. She stood by while he deliberately returned to his description of the "chief," turning up a page on his heraldry books, where all the uses and meanings of that "augmentation" were discussed. According to all appearance his mind took up this important question exactly where he had left it; and he resumed his writing steadily, betraying agitation only by a larger, bolder, and firmer handwriting. His daughter stood for a moment by his side, and watched him speechless—then went out of the room without another word. The Squire went on writing for a full minute more. The lines he wrote had not been so bold, so firm, so well-defined for years. Was it because he had to put the whole force that remained in him, soul and body, to get them upon the paper at all? When all sound of her departing steps had died out, he stopped suddenly, and, putting down his pen, let his head drop upon the open book and its figured page. An augmentation of honor! The days were over in which such gifts came from heralds and kings. And instead, here were struggles of a very different kind from those which won new blazons. But the most insensible, the most self-controlled of men, could not take such an interruption of his studies with absolute calm. He had never come into such desperate conflict with any man as with this son, and here his enemy, whom nature forbade to be his enemy, his antagonist, say rather, had come again after the silence of years and confronted him. To see such a one pass

by, could not but excite a certain emotion; but to meet him thus as it were face to face! The passion of parental love has been often portrayed. There is no passion more fervent, none perhaps even that can equal it; but there is another passion scarcely less intense—that which rises involuntarily in the bosom of a man between whom and his son there are no ties of mutual dependence, when the younger has become as the elder, knowing good and evil, and all the experiences of life; when there is no longer a question of authority and obedience, and natural affection yields to a strain of feeling which is too strong for it. Many long years had passed now since young Musgrave ceased to be his father's pride, and boyish second in everything. He had grown a man, his equal, and had resisted and held his own in the conflict half a lifetime ago. All the embitterment which close relationship gives to a deadly quarrel had been between them, and though the father had so far got the better as to drive the rebel out of his sight, he had not crushed his will or removed him from his standing-ground. He was the victor, though the vanquished. His son had not yielded, nor would ever yield. When Mr. Musgrave raised his head his face was pale, and his head shook with a nervous tremor; all the broken redness of his cheeks shone like pencilled lines through his pallor, increasing it. "This will never do," he said to himself, and rising, went to an old oak cupboard in the corner, and poured himself a small glass of the strongest of liqueurs. Not for all that remained of the Musgrave property would he have shown himself so broken, so overcome. This other man who was no stronger but only younger, than himself, was at the same time his successor, ready to push him out of his seat; waiting for a triumph that must come sooner or later. He had been able to forget all about him for years; to thrust out the thought when it occurred; but here this man stood once more confronting him. The Squire was wise in his way, and knew that there was nothing in the world so bad for the health, or so likely to give his antagonist an advantage as the indulgence of emotion—therefore he crushed it "upon the threshold of the mind." He would not give him that

help towards the inevitable eventual triumph. He went back to his writing-table when he had fortified himself with that potent mouthful; but knowing himself, tried his pen upon a stray bit of paper before he would resume his writing. What he wrote was in the quivering lines of old age. He tore it into pieces. No one should see such a sign of agitation in the manuscript which was to last longer than he. He took up the most learned of his books, and began to read with close attention. Here, at all events, the adversary should not get the better of him; or, at least, if thoughts did surge and rise, obliterating the old escutcheon altogether and the lion on its "chief," nobody should be the wiser. Thus the old man sat with a desperate courage, worthy a better object, and mastered the furious excitement in his mind. But he was not thinking of the children as perhaps the reader of this story may suppose. He was not resisting the thrill of natural interest, the softening of heart which might have attended that sudden arrival. He did not even realise the existence of the children. His thoughts were of conflicts past, and of the opponent against whom he had striven so often: the opponent whom he could not altogether dismiss or get rid of, his rival, his heir, his successor, his son. There was nothing he had wished as a father, as a Musgrave, as the head of a great county family, which this man had not done his best to undo; and as he had by ill-fortune thirty years the advantage of his father, there was no doubt that he would, some time or other, undo and destroy to an extent of which he was incapable now; unless indeed he was prevented in the most disgraceful way, incapacitated by public conviction of crime. This consciousness had always been in Mr. Musgrave's mind. It had returned to him at intervals throughout the last twenty years. It had made him to a great extent lay aside his natural occupations, and leave the management of the estate in his daughter's hands. Sometimes, indeed, he would be stimulated by it into a determination to have, so long as it was in his power, everything his own way; but this impulse yielded to the sickening of impatient disgust with which he remembered that his wishes some time or other would have no weight

at all among his own people. The more completely he could banish this thought from his mind, the happier he was, and he had done so to a wonderful extent for many years past. He had avoided successfully enough the idea that he himself would one day be compelled to die. Many men do this who have no painful consciousness of the heir behind who is waiting to dispossess them; and Mr. Musgrave had, to a great degree, attained tranquillity on this point. The habit of living seems to grow stronger with men as they draw near the end of their lives. It has lasted so long; it has been so steady and uninterrupted, why should it ever cease? But here was the death's-head rising at the feast; the executioner giving note of his presence behind backs. John! he had dismissed him from his mind. He had exercised even a kind of Christianity in forgetting him. But here he was again, incapable of being forgotten. What a tremor in his blood! What undue working of all that machinery of the heart which it is essential to keep in calm, good order had this interruption caused! he who had no vital energy to spare; who wanted it all for daily comfort and that continuance which with younger people is so lightly taken for granted. How much of that precious reserve had been consumed by this shock. It had been done on purpose, perhaps, to try the effect of a shock upon his nerves and fibres.

Mr. Musgrave pushed back his chair again from the table, and gave all his faculties to the task of calming himself down. He would not allow himself to be overcome by John. But it took him a long time to accomplish this, to get his pulse back to its usual rate of beating. When he relaxed for a moment in his watch over himself, old recollections would throw back scenes of the long warfare, words that were as swords, and smote him over again with burning and stinging wounds. He had to calm it all down and still memory altogether if he would have any hope of recovering. It wanted about an hour of their ordinary time for dinner when he began this process. Up to that time it did not so much matter, except for wearing him out and diminishing his strength. But it was his determination that no one should know or see this agitation which he had not

been able to master. His daughter thought she had a harder task before her when she left him and hurried back to the ghostly, half-lighted hall where she had left the children; but what was her work, or the commotion of her thoughts in comparison to that which raged within the bosom of the old man in his solitude, defying Heaven and nature, and all gentler influences, whose conflict was for himself only, as it was carried on unhelped and unthought of by himself alone?

CHAPTER V.

WAKING UP.

MISS MUSGRAVE went back to her visitors with a heightened color and assured step. Her alarm had departed along with the wistful and hopeful ignorance as to what her father might do. Now that she knew her courage came back to her. When she opened the door which led out of the little passage into the hall, the scene before her was striking and strange enough to arrest her like a picture she had never seen before. The great ancient room with its high raftered roof, and wide space, lay in darkness—all but one bright spot in the midst where the lamp stood on the table. Miss Brown had hastily arranged a kind of homely meal, a basket of oatcakes, some white bread in a napkin, biscuits, home-made gingerbread, and a jug of fresh milk. The white and brown bread, the tall white jug, the cloth upon the tray, all helped to increase the whiteness of that spot in the gloom. In the midst of this light sat the Italian nurse, dark and vigorous, with the silver pins in her black hair, and red ribbons at her breast. The pale little boy sat on her knee; he had a little fair head like an angel in a picture, light curling hair, and a delicate complexion, white and red, which was fully relieved against that dark background. The child's alarm had given way a little, but still, in the intervals of his meal, he would pause, look round him into the gloom, and clutch with speechless fright at his attendant, who held him close and soothed him with all the soft words she could think of. Little Lilius stood by her on the further side, sufficiently recovered to eat a biscuit, but

securing herself also, brave as she was, by a firm grasp of the nurse's arm, to which she hung, tightly embracing it with her own. Miss Brown was flitting about this strange little group, talking continuously, though the only one among them who was disposed to talk could not understand her, and the children were too worn out to pay any attention. There was a little start and thrill among the three who held so closely together when the lady returned. Little Lilius put down her biscuit. She became the head of the party as soon as Miss Musgrave came back—the plenipotentiary with whom to conduct all negotiations. Nello, on the other hand, buried his head in his nurse's shoulder. In the midst of all her agitation and confusion it troubled Miss Musgrave that the child should hide his face from her. The boy who was like herself and her family was the one to whom her interest turned most. Lilius bore another resemblance which was no passport to Mary Musgrave's heart. Yet it was hard to resist the fascination of this child's sense and courage; the boy as yet had shown himself capable of nothing but fear.

"Go and have fires lighted at once in the two west rooms—make everything ready," Mary said, sending Miss Brown away peremptorily. It was not a worthy feeling perhaps, but it vexed her, agitated as she was, to see that her maid woke no alarm in the children, while she, their nearest relation, she who, if necessary, had made up her mind to sacrifice everything for them, was an object of fear. She thought even that the children clung closer to their nurse, and shrank more from herself when Martha was sent away. Miss Musgrave stood at the other side of the table and looked at them with many conflicting thoughts. It was altogether new to her, this strange mixture of ignorance and wonder, and almost awe on her own part of these unknown little creatures, henceforward to be wholly dependent upon her, with the natural authority and absolute power over them with which she was endowed. They were afraid of her, but she was scarcely less afraid of them, wondering with an ache in her heart whether she would be able to feel towards them as she ought, to bring her middle-aged thoughts into sympathy with theirs, to be

soft and gentle with them as their helplessness demanded. Love does not always come with the first claim upon it; how was she to love them, little unknown beings whose very existence she had never heard of before? And Mary thought of herself with a certain pity in this strange moment, remembering almost with a sense of injury that the fountain of mother's love had never been awakened in her at all. Was it thus to be awakened? She was not an angelic woman, as poor Mr. Pen imagined her to be. She knew this well enough, though he did not know it. She had been young and full of herself when the family misfortunes happened, and since then what had there been in her life to warm or awaken the heart? Was she capable of loving, she asked herself? was there not a chill atmosphere about her, which breathed cold upon the children and drove them away? This thought gave her a pang, as she stood and looked at the two helpless creatures before her, too frightened now to munch their biscuits, one gazing at her with big pathetic eyes, the other hiding his face. An ache of helplessness and pain not less great than theirs came into her mind. She was as helpless as they were, looking at them across the table, as if across a world of separation which she did not know how to bridge over, with not only them to vanquish, but herself. At last she put out her hands with a sense of weakness, such as perhaps she had never felt before. She had not been able, indeed, to influence her father, but she had not felt helpless before him; on the contrary his hardness had stirred her to determination on her side, and a sense of power which quickened the flowing of her blood. But before these children she felt helpless; what was she to do with them, how bring herself into communication with them? She put out her hands, hands strong to guard, but powerless she thought to attract. "Lilias, will you come to me?" she said, with a tremulous tone in her voice.

The weariness, the strangeness, the darkness had been almost too much for Lilias; her mouthful of biscuit and draught of milk had been too quickly interrupted by the return of the strange, beautiful lady, with whom she alone, she was aware, could deal. And she could

not respond to that appeal without quitting hold of Martuccia, who, though powerless to treat with the lady, was still a safeguard against the surrounding blackness, a something to cling to. But the child was brave as a hero, notwithstanding the nervous susceptibility of her nature. She disengaged her arm slowly from her one stay, keeping her eyes all the time fixed upon Miss Musgrave, half attracted by her, half to keep herself from seeing those dark corners in which mysterious dangers seemed to lurk; and came forward, repressing the sob that rose in her throat, her little pale face growing crimson with the strain of resolution which this effort cost her. It was all Lilias could do to move round the table quietly, not to make a rush of fright and violent clutch at the hand held out to her—even though it was the hand of a stranger, from which in itself she shrank. Mary put her arm round the little trembling figure, and smoothing away the dark hair from her forehead, kissed the little girl with lips that trembled too. She would do her duty by her; never would she forsake her brother's child; and with the warmth of this resolution tears of pity and tenderness came into her eyes. But when Lilias felt the protection of the warm soft arm about her, and the tenderness of the kiss, her little heart burst forth with a strength of impulse which put all laws at defiance. With a sobbing cry she threw herself upon her new protector, caught at her dress, clung to her waist, nestled her head into her bosom, with a close pressure which was half gratitude, half terror, half nervous excitement. Mary was taken by storm. She did not understand the change that came over her. A sudden warmth seemed to come into her veins tingling to her very finger points. She too, mature and self-restrained as she was, began to weep, a sudden flood of tears rushing to her eyes against her will. "My darling, my brave little girl!" she said almost unawares, recognising in her heart a soft surprise of feeling which was inexplicable; was this what nature did, sheer nature? she had never felt anything like it before. She held the child in her arms and cried over her, the tears falling over those dark curls which had nothing to do with the Musgraves, which even resembled another type with

which the Musgraves would have nothing to do!

As she stood thus overcome by the double sensation of the child's nestling and clinging, and by the strange, sudden development of feeling in herself, Mary Musgrave felt two soft touches upon her hand which were not mistakable, and which made her start and flush, with the decorum of an Englishwoman surprised. It was Martuccia, who, moved like all her race by quick impulses of emotion, had risen hastily to her feet in sympathy, and had kissed the lady's hand, and put forward her little charge to perform the same act of homage. This roused Mary from her momentary breaking down. She took the little boy by the hand whom she found at her feet, not quite so frightened as at first, but still holding fast by the nurse's skirts, and led them both up stairs. They were too much awed to make any noise, but went with her, keeping close to her, treading in her footsteps almost, closer and closer as they emerged into one unknown place after another. Wonder kept them still as she took them through the cheerful lighted dining-room, and up the stairs. Eastwood was busy about his table, putting it in that perfect order which it was his pride to keep up ("For who is more to me nor my family? what's company?" said Eastwood, "it's them as pays me as I'm bound to please"); but Eastwood was too good a servant to manifest any feeling. He had, of course, heard all about the arrival, not only from the gardener, but from every soul in the kitchen; and he was aware, as nobody else was, that there had been a private interview between the father and daughter, to which she had gone with a pale face, and come back with nostrils expanded, and a glow of resolution upon her. Eastwood was not an old servant, but he had learned all that there was to learn about the family, and a little more. His interest in the children was not so warm as that of Cook, for instance, who had been born in the place, and had known them from their cradles; but he had the warm curiosity which is common to his kind. He gave them a glance from beneath his eyebrows, wondering what was to become of them. Would they be received into the house for good, and if so, would that have any effect upon himself, East-

wood? would it, by and by, be an increase of trouble, a something additional to do? He was no worse than his neighbors, and the thought was instinctive and natural, for no one likes to have additional labor. "But he's but a little chap; it'll be long enough before he wants valeting—if ever," Mr. Eastwood said to himself. What would be wanted would be a nurse, not a valet; and if that black-eyed foreigner didn't stay, Eastwood knew a nice girl from the village whom the place would just suit. So he cast no unkindly eye upon the children as he went noiselessly about in his spotless coat, putting down his forks, which were quite as spotless. The sight of the table with its bouquet of autumn flowers excited Lillas. "Who is going to dine there?" she said, with a pretty childish wile, drawing down Miss Musgrave towards her to whisper in her ear.

"I am, Lillas."

"May we come, too?" said the little girl. "Nello is very good—he does not ask for anything; we know how to behave."

"There will be some one else besides me," said Mary, faltering slightly.

"Then we do not want to come," said Lillas with decision. "We are not fond of strangers."

"I am a stranger, dear——"

"Oh, no, you are Mary," said the child embracing Miss Musgrave's arm with her own two arms clasped round it, and raising her face with the confidence of perfect trust. These simple actions made Mary's heart swell as it had not done for years—as indeed it had never done in her life. Other thrills there might have been in her day, but this fountain had never been opened before, and the new feeling was almost as strangely sweet to her as is the silent ecstasy in the bosom of the new mother, whose baby has just brought into the world such an atmosphere of love. It was like some strange stream of gladness poured into her heart, filling up all her veins. The firelight had already begun to sparkle pleasantly in the bedrooms, and Mary found herself suddenly plunged into those pleasant cares of a mother which make time fly so swiftly. She had found so much to do for them, getting them to bed and making the weary little creatures comfortable, that

the bell rang for dinner before she was aware. She left them hastily, and put herself into her evening gown with a speed which was anxiously seconded by Miss Brown, who for her part was just as eager to get back to the children as was her mistress. Miss Musgrave did not know what awaited her when she went down stairs, or what battles she might have to fight. She had another duty now in the world beyond that claimed by her father. He had no such need of her as these children, who in all the wide world had no protector or succor but herself. Her heart beat a little louder and stronger than usual; her bearing was more dignified. The indifference which had been in her life this morning had passed away. How strange it seemed now to thing of that calm which did not care much for anything, which had seemed comparatively happy, and which now appeared so mean and poverty-stricken. The easy quiet had gone out of her life;—was it for ever? and instead there had come in a commotion of anxieties, hopes, and doubts and questions manifold; but yet how miserable to her in comparison seemed now that long loveless tranquillity! She was another woman, a living woman, she thought to herself, bearing the natural burden of care, a burden sweetened by a hundred budding tendernesses and consolations. It is well to have good health and enough to do; these had been the bare elements of existence, out of which she had managed to form a cold version of living; but how different was this vivid existence, new-born yet eternal, of love and care. She was like one inspired. If she had been offered the alternative, as she almost expected, of leaving the house or giving up the children, with what pride would she have drawn her cloak round her and left her father's house. This prospect seemed near enough and likely enough as she walked into the dining-room, with her head high, and a swell of conscious force in her bosom. Whatever might be coming, she was prepared for any blow.

Mr. Musgrave, too, was late. He who was the soul of punctuality did not enter the room for a minute or more after his daughter had hastened there, knowing herself late—but whereas she had hurried her toilet his had never been more careful

and precise. He took his seat with a careful steadiness, and insisted upon carving the mutton and partridge which made their meal, though on ordinary occasions he left this office to Eastwood. It gratified him, however, to-day, to prove to himself and to her how capable he was and how steady were his nerves. And he talked while he did this with unusual energy, going over again all the history of the "chief."

"I hope it will interest the general reader," he said. "Not many family questions do, but this is really an elucidation of history. It throws light upon a great many things. You scorn heraldry, Mary, I am aware."

"No, I do not think I scorn it."

"Well, at all events you are little interested; the details are not of much importance, you think. In short, I suspect," he added, with a little laugh, "that if the truth were told, you and a great many other ladies, secretly look upon the science as one of those play-sciences that keep men from being troublesome. You don't say so, but I believe you think we fuss and make work for ourselves in this way, while you are carrying on the real work of the world."

"I am not so self-important," she said; but there was a great deal of truth in the suggestion if her mind had been free enough to think of it. What was it else but a play-science to keep country gentlemen too old for fox-hunting out of mischief? This is one of the private opinions of the gynæceum applying to many grave pursuits, an opinion which circulates there in strictest privacy and is not spoken to the world. Mary would have smiled at the Squire's discrimination had her mind been free. As it was she could do nothing but wonder at his liveliness and composure, and say to herself that he must be waiting till Eastwood went away. This, no doubt, was why he talked so much, and was so genial. He did not wish to betray anything to the servants, and her heart began to beat once more with renewed force as the moment came for their withdrawal. No doubt it would come, and most likely come with double severity then. She had seen all this process gone through before.

But when Eastwood went away the

Squire continued smiling and conversational. He told her of a poacher who had been brought to him, a bumpkin from a distant farm, to whom he meant to be merciful; and of some land which was likely to be in the market which would, if it could be got, restore an old corner of the estate and rectify the ancient boundary.

"I do not suppose there is any hope of such a thing," he said, with a sigh. "And besides, what does it matter to me that I should care? my time cannot be very long."

"The time of the family may be long enough," she said, with a throb of rising excitement, for surely now he would speak. "One individual is not all."

"That is a sound sentiment—though perhaps it may seem a little cold-hearted when the individual is your father, Mary."

"I did not mean it to be cold-hearted; you have always taught me to consider the race."

"And so you ought," he said, "though you don't care so much for the blazon as I could wish. I should like to talk to Burn and to see what the lawyers would think of it. I confess I should like to be Lord of the Manor at Critchley again before I die."

"And so you shall, father, so you shall!" she cried. "We could do it with an effort—if only you would—if only you could——"

He interrupted her hastily.

"When Burn comes to-morrow let me see him," he said. "This is no question of what I could or would. If it can be done it ought to be done. That is all I have to say. Is it not time you were having tea?"

This was to send her away that he might have his evening nap after dinner.

Mary rose at the well-known formula, but she came softly round to his end of the room to see that the fire was as he liked it, and lingered behind his chair, not knowing whether to make another appeal to him. Her presence seemed to make him restless; perhaps he divined what was floating in her mind. He got up quickly before she had time to speak.

"On second thoughts," he said, "as I was disturbed before dinner, I had better resume my work at once. You can send me a cup of tea to the library. It is not often that one has such a satisfactory

piece of work in hand; that charms away drowsiness. Be sure you send me the cup of tea."

"You will not over-fatigue yourself, father?" said Mary, faltering. "I—hope you will not do too much."

This was not what she meant to say, but these were the only words that she could manage to form out of her lips.

"Oh, no; do not be uneasy. I shall not overwork myself," said the Squire once more, with a laugh.

And he went out of the room before her, erect and steady, looking younger and stronger in the force of that excitement which he was so careful to conceal. Mary did not know what to think. Was he postponing his sentence to make it more telling? or was he, happier thought, moved by it, as she herself had been, warmed into forgiveness, into relenting, into the happiness of old age in children's children? Could this be so? She stood over the fire in her agitation holding her hands out to the ruddy blaze, though she was not cold. Her heart beat violently against her breast. How uneasy a thing this life was, how restless and full of change and commotion. Yet so much more, so much greater than the guilty stagnation which was gone.

CHAPTER VI.

AT THE VICARAGE.

THE vicarage was stilled in the quiet of the evening, the children in bed, the house at rest. It was not the beautiful and dignified old house which in England is the ideal dwelling of the gentleman-parson, the ecclesiastical squire of the parish. And indeed Mr. Pennithorne was not of that order. Though there had been many jokes when he first entered upon the cure as to the resemblance between his name and that of the parish, Pennithorne of Penninghame was a purely accidental coincidence. Mr. Musgrave was the patron, but the living was not wealthy enough or important enough to form that appropriate provision for a second son which, according to the curious subordination and adaptation of public wants to family interests, has become the rule in England, unique as are so many others. Randolph Mus-

grave had his rectory in Devonshire, in the district which was influenced by his mother's family, where there was something more worth his acceptance, and his old tutor had got the family living. Mr. Pennithorne was not a distinguished scholar with chances of preferment through his college, and it had been considered a great thing for him when, after dragging the young Musgraves through a certain proportion of schooling and colleging, he had subsided into this quiet provision for the rest of his life. He was a clergyman's son, with no better prospects, and whatsoever glimmerings of young ambition there might have been in him, there was no coming down involved when he accepted the small rural vicarage where his heart was. We have already said that in his wildest hopes a vision of the possibility of bringing Mary Musgrave to the vicarage to share his humble circumstances with him had never entered into Mr. Pennithorne's mind; but to be near her was something, and to be her trusted and confidential friend seemed the best that life could give him. Here he had remained ever since, being of some use to her, as he hoped from time to time, and some comfort at least, if nothing more, in the convulsions of the family. During the first years of his incumbency Mr. Pennithorne's own mind had been subject to many convulsions as one suitor after another came to the Castle; but as they had all ridden away again with what grace they could after their rejection, comfort had come back. It was a curious passion, and one which we do not pretend to explain. After a while, impelled by friends, by convenience, and by the soft looks of Emily Coniston, the daughter of the clergyman in his native place, to which he had gone on a visit, he had himself found it possible to marry without any drawback to his visionary love; but still to this day, though he had been Emily's husband for ten years, it troubled the good vicar when any stranger came to the Castle whose society seemed specially pleasant to Miss Musgrave. He would hang about the place at such times like an alarmed hen when something threatens the brood, nor ceased to cluck and flutter his wings till the danger was over. Did he not wish her happiness? Ah, yes, and would, he

thought, have given his life to procure it; but was it necessary that happiness should always be got in that one vulgar way? Marriage was well enough for the vulgar, but not for Mary. It would have been a descent from her maiden dignity, a lowering of her position. He was willing that everybody should love her and place her on a pedestal above all women; but it wounded his finest feelings to think that she too, in her turn, might love. There was no man good enough or great enough to be worthy of awakening such a sentiment in Mary Musgrave's breast.

As is not unusual in such cases, Mr. Pennithorne, the chief inspiration of whose life was a visionary passion of the most exalted and exalting kind for a woman, had married a woman for whom no one could entertain any very exalted or impassioned feelings. Perhaps the household drudge is a natural double or attendant of the goddess. They "got on" very well together, people said, and Mr. Pen put up with his wife's little foolishnesses and fretfulnesses, as perhaps a man could not have done whose heart was fortified by no ideal passion. Emily was a good housekeeper of the narrow sort, caring very little for comfort, and very proud of her economy; and she was a good mother of the troublesome kind, whose children are always in the foreground, always wanting something, always claiming her attention. Mr. Pen adored them, and yet he was glad when they were got to bed, when his wife could be spoken to without one child clinging to her skirts, or another breaking in upon everything with plaintive appeals to mamma. But he took it for granted that this was how it must be, and that a more lovely course of life was impracticable. One woman excepted, all women, he thought, were like this; it is thus that the dogmatisms of common opinion are formed and kept up; and what could be done but to shrug his shoulders at the inevitable, escaping from it into his study, or with a sigh into that world of the ideal where imagination is never ruffled by the incidents of common life. The children were in bed on this October night, and everything was still. The vicarage was not a handsome house, nor very old, but badly-built and commonplace, redeemed by nothing but its garden, which was large, and gave a

pretty surrounding to the place in summer. But the night had become stormy, and the wind was raving in the trees, making their close neighborhood anything but an advantage. Mrs. Pennithorne thought it extravagant to use two sitting-rooms, so the family ate and lived in the dining-room, a dark room papered and furnished as, in the days when Mr. Pen was married, it was thought right to decorate such places, with a red flock paper of a large pattern which relieved the black horsehair of the furniture. The room was not very large. It had a black marble mantel-shelf, with a clock upon it, and some vases of Bohemian glass, and a red and blue tablecover upon the table, about which there lingered always a certain odor of food, especially in cold weather, when the windows were closed. Mrs. Pennithorne sat between the fire and the table. She had some dressmaking in hand, which made a litter about, dark winter stuff for little Mary's frock; and as she had no genius for this work, it was a lingering and confusing business to her, and made her less amiable than usual. The reason why her husband was there at all instead of being in his study was that the evening was cold; but it had not yet become, according to Mrs. Pen's code, time for fires. There was one in the dining-room, for she had not been well; but to light a second so early in October was against all her traditions, and Mr. Pen had been driven out of his study, where he had been sitting in his greatcoat, and now stood with his back to the fire, warming himself, poor man, in preparation for another spell of work at his sermon. He was thin and felt the cold. It was this, she had just been saying, that had brought him, and not any regard for her loneliness—which indeed was quite true.

"No, Emily," he said meekly, "for I have my work to do, you know; but while I am here, I hope you are not sorry to see me. The children were rather late to-night."

"I am glad to keep them up a little for company," she said. "It is not so cheerful sitting here all alone, hearing the wind roar in the trees; and my nerves are quite gone. I never used to fear anything when I was a young girl, but now I start at every sound. I don't

mean to blame *you*, but it is lonely sitting by one's self after being one of a large family."

"No doubt—no doubt," he said soothingly. "I suppose we gain something as years go on, but we do lose something. That must be taken for granted in life."

"I don't like your philosophy, Mr. Pennithorne," said Emily; "the way you have of always making out that things have to be! I don't see it, for my part. I think a married woman should have a great deal to cheer her up that a girl can't have—"

"My dear," he said, "perhaps I am not much—and you know the parish is my first duty; but have you not the children?—dear children they are. I do not think there can be any greater pleasure than one's children—"

"You have nothing to do but enjoy them," said Mrs. Pennithorne, slightly softened; "but if you had to work and slave like me! There is never a day that I have not something to do for them; mending, or making, or darning, or something. Fathers have an easy time of it; play with the baby now and then, take out the elder ones for a walk, and that's all. That is nothing but pleasure; but to sit for days and work one's fingers to the bone—"

"I wish you would not, Emily. I have heard you say that Miss Price in the village was a very good dressmaker—"

"For those who can afford her," said Mrs. Pennithorne. "But," she added, with a better inspiration, "you make me look as if I were complaining, and I don't want to complain. Though it is dull, William, you must allow, sitting all the evening by one's self—"

"But I have to do the same," he said, with gentle hypocrisy. "You know, Emily, if I wrote my sermon here, we should fall to talking, which no doubt is far pleasanter—but it is not duty, and duty must come before all—"

"There is more than one kind of duty," said Mrs. Pennithorne, who was tearing her fingers with pins putting together two sides of Mary's frock. While she was bending over this, the maid came into the room with a note. There was something in the "Ah!" with which he took it which made his wife raise her head. She was not jealous of Miss.

Musgrave, who was nearly ten years older than herself, an old maid, and beneath consideration; but she did think that William thought a great deal too much of the Castle. "What is it now?" she said pettishly. Perhaps once more—they had done it several times already—it was an invitation to dinner for Mr. Pennithorne alone. But he was so much interested in what he was reading that he did not even hear her. She sat with her scissors in her hand, and looked at him while he read the note, his face changing, his whole mind absorbed. He did not look like that when their common affairs were discussed, or the education of his children, which ought to be more interesting to him than anything else. This was other people's business—and how it took him up! Mrs. Pennithorne was a good woman, and did her duty to her neighbors when it was very clearly indicated; but still, of course, nothing could be of such consequence as your own family, and your duty to them. And to see how he was taken up, smiling, looking as if he might be going to cry! Nothing about Johnny or Mary ever excited him so. Mrs. Pennithorne was not only vexed on her own account, but felt it to be wrong.

"Now, life is a wonderful thing," he said suddenly. "I went to the Castle this afternoon——"

"You are always going to the Castle," she said, in a fretful voice.

"Expressly to tell Miss Musgrave how much my mind had been occupied about her brother John. You never knew him, Emily; but he was my pupil, and I was very fond of him——"

"You are very fond of all the family, I think," she said, half-interested, half-aggrieved.

"Perhaps I was," he said, with a little sigh, which, however, she did not notice; "but John particularly. He was a fine fellow, though he was so hot-headed. The other night I kept dreaming of him, all night long—over and over again."

"That was what made you so restless, I suppose," Mrs. Pennithorne put in, in a parenthesis. "I am sure you have plenty belonging to yourself to dream of, if you want to dream."

"—And I went to ask if they had heard anything, smiling at myself—as she did for being superstitious. But here is the

wonderful thing: I had scarcely left, when the thing I had foreseen arrived. A carriage drew up containing John Musgrave's children——"

"Did you know John Musgrave's children? I never knew he had any children——"

"Nor did I, or any one!—that is the wonder of it. I felt sure something was happening to him or about him—and lo! the children arrived. It was no cleverness of mine," said Mr. Pennithorne with gentle complacency, "but still I must say it was a wonderful coincidence. The very day!"

Mrs. Pennithorne did not make any reply. She was not interested in a coincidence which had nothing to do with her own family. If Mr. Pen had divined when Johnny was to break his arm, so that they might have been prepared for that accident! but the Musgraves had plenty of people to take care of them, and there seemed no need for a new providential agency to give them warning of unsuspected arrivals. She put some more pins into little Mary's frock—the two sides of the little bodice never would come the same. She pulled at them, measured them, repinned them, but could not get them right.

"I have heard a great deal about John Musgrave," she said with a pin in her mouth. "What was it he did that he had to run away?"

"My dear Emily! don't do that, for heaven's sake—you frighten me; and besides it is not—pretty—it is not becoming——"

"I think I am old enough by this time to know what is becoming," said Mrs. Pennithorne with some wrath, yet growing red as she took out the pins. She was conscious that it was not lady-like, and felt that this was the word her husband meant to use. "If you know the trouble it is to get both sides the same," she added, forgetting her resentment in vexation. It was a troublesome job. There are some people in whose hands everything goes wrong. Mrs. Pen shed a tear or two over the refractory frock.

"My dear! I hope it is not my innocent remark——"

"Oh no, it is not any innocent remark. It is so troublesome. Just when I thought I had got it quite straight! But what do you know about such things?"

You have nothing to say to Mary's frock. You never would notice, I believe, if she had not one to her back, or wore the same old rag year after year——"

"Yes, Emily, I should notice," said Mr. Pen with some compunction; "and I am very sorry that you should have so much trouble. Send for Miss Price tomorrow, and I will pay her out of my own money. You must not take it off the house."

"Oh, William! William!" said his wife, "who is it that will suffer if your own money, as you call it, runs out? Do you think I am so inconsiderate as only to think of what I have for the house! Isn't it all one purse, and will it not be the children that will suffer eventually whoever pays? No, your money shall not be spent to save me trouble. What is the good of us but to take trouble?" said Mrs. Pen with heroic fortitude.

Mr. Pen sighed. Perhaps he was more conscious of the litter of dressmaking than of this fine sentiment. But anyhow he did not give any applause to the heroine. He left indeed this family subject altogether, and after a momentary pause, said half to himself, "John Musgrave's children! Who could have thought it! And how strange it all is——"

"Really, Mr. Pennithorne," said his wife, offended, "it is too much. I don't believe you think one half so much of your own children as of those Musgraves. What did they ever do for us?"

"They did this for us, my dear. That but for them I should not have had a home to offer you—nor a family at all," said the vicar with a little warmth. "I might have been still travelling with boys about the world——"

"Oh, William, not with your talents," said his wife, looking at him with admiration. With all her fretfulness and insensibility to those fine points of internal arrangement for which he had a half-developed, half-subdued taste, Emily had still a great admiration for her husband. Now Mary Musgrave, who was, unknown to either, her spiritual rival, had no admiration for good Mr. Pen at all. This gave the partner of his life an infinite advantage. His voice softened as he replied, shaking his head:

"Unfortunately, my love, other people

do not appreciate my talents as you do."

"That is because they don't know you so well," she said with flattering promptitude. Mr. Pennithorne drew a chair to the fire and sat down. It was but rarely that he received this domestic adulation; but it warmed him, and did him good.

"Ah, my dear, I fear I must not lay that flattering unction to my soul," he said.

"You are too modest, William; I have always said you were too modest," said Mrs. Pennithorne, returning good for evil. How little notice he had taken of her fine heroic feeling and self-abnegation! Women are more generous; she behaved very differently to him. And the fact was, he very soon began to think that old Mr. Musgrave had made use of him, and given him a very poor return. The vicarage was not much—and the Squire had never attempted to do anything more. It is sweet to be told that you are above your fate—that Providence owed you something better. He roused himself up, however, after a time out of that unwholesome state of self-complacency. "What a strange state of affairs it is, Emily," he said. He was not in the habit of making his wife his *confidante* on matters that concerned the Musgraves, but in a moment of weakness his resolution was overcome. "What a painful state of affairs! Mr. Musgrave knows of the coming of these children, but he takes no notice, and whether she is to be allowed to keep them or not——"

"Dear me, think of having to get permission from your father at her time of life," said Mrs. Pennithorne, with a naive pity. "And whom did he marry, William, and what sort of a person was their mother? I don't think you ever told me that."

"Their mother was—John's wife; I must have told you of her. She was not the person his family wished. But that often happens, my dear. It is no sign that a man is a bad man because he may make what you may call a mistaken choice."

"My dear William," said Mrs. Pen, with authority, "there is nothing that shows a man's character so much as the wife he chooses; my mother always said so. It is the best test if he is a nice feeling man or not," the vicar's wife said

blandly, with a little cousin's smile upon her face.

Mr. Pennithorne made no reply. There was something humorous in this innocent little speech, considering who the speaker was, to anyone who knew. But then nobody knew; scarcely even Mr. Pennithorne himself, who at this moment was so soothed by his wife's "appreciation," that he felt himself the most devoted of husbands. He shook his head a little, deprecating the implied condemnation of his old pupil; for the moment he did not think of himself.

"Now that we are sitting together, and really comfortable for once in a way," said Mrs. Pennithorne, dropping Mary's bodice with all the pins, and drawing her chair a little nearer to the fire; "it does not happen very often—tell me, William, what it is all about, and what John Musgrave has done."

Again the vicar shook his head. "It's a long story," he said, reluctantly.

"You tell things so nicely, William, I

sha'n't think it long; and think how strange it is, knowing so much about people, and yet not knowing anything. And of course I shall have to see the children. Poor little things, not to be sure of shelter in their grandfather's house! but they will always have a friend in you."

"They will have Mary; what can they want more if they have *her*?" he said suddenly, with a fervor which surprised his wife; then blushed and faltered as he caught her eye. What right had he to speak of Miss Musgrave so? Mrs. Pennithorne stared a little, but she saw no reason for the exaggerated respect with which the squire's daughter was treated. Why should not she be called Mary—was it not her name?

"Mary indeed! what does she know about children? But, William, I am waiting, and this is the question—What did John Musgrave do?"

(To be continued.)

INSIDE THE HOUSE OF COMMONS

THE newspapers inform the public of what is done in the House of Commons. All the speeches are duly chronicled, and the course of business is duly reported. But the inner working of the machinery is not laid bare, and as little is really known of it outside the House as the works of a clock are known by merely looking at the dial-plate, and seeing the movement of the hands. It is, we think, not unnatural that people should wish to understand something of the machinery, and get a glimpse, as it were, into the interior of the Commons House of Parliament, where so many mighty interests are at stake, and so many questions which affect the wellbeing of the community are determined.

What would we not give for a full and authentic account of the working of the Boulé at Athens, and the Senate at Rome—of the rules which regulated their proceedings, and the mode in which they carried on their business from day to day? Take, for instance, the Senate of Rome. How was the order in which senators were to speak determined? What analogy was there between the

position of the *Principes Senatus* and that of the modern leader of the House? How many were a *quorum*? How came there to be "senators of the foot," *Senatores Pedarii*, who, we are told, had the right to speak but not to vote, but when the others had voted might step over and join the one or the other party which had already voted?—for what purpose?—what was the exact force of a *Senatus Consultum* as distinguished from a *Lex*? These, and many other questions we should like to have satisfactorily answered; but the night of antiquity has settled over them, and we can only grope in the dark, and by the aid of such critical acumen as scholars can supply, guess blindly where we desire eagerly accurate information.

Happily we have for the 'Law Privileges, Proceedings, and Usage' of Parliament, an admirable guide in the exhaustive work of Sir Erskine May, of which it is hardly an exaggeration to say that it is the Bible of the two Houses of Parliament, and is more often referred to there in cases of difficulty than any other book. But it is a bulky volume, not

much, we suspect, read by the general public; and some things of which we propose to speak could not find a place there, for they are, perhaps, beneath the dignity of a grave and learned treatise, and yet not without interest, as showing the mode and manner in which the representatives of the constituencies of this great empire comport themselves in the House of Commons. At all events, we think we shall be doing a service to the public if we venture to bring under their notice, in easy gossiping fashion, some of the peculiarities and manner of transacting public affairs in that honorable House. We do not intend to observe any formal order in our remarks; and it must be remembered that our limits will not allow us to do more than touch lightly upon many of the topics which are elaborately discussed in the work of Sir Erskine May. What we propose is to sketch a kind of Flemish interior, and exhibit the House of Commons in its ordinary work-a-day dress.

The rows of cushioned benches that run down each side of the House are divided crossways, at a distance about one-third of the whole length, by a narrow passage, called the Gangway, which used to have a more important significance than at present when parties are not so sharply defined, although even now it indicates a certain line of separation in politics. Above the gangway, on the Ministerial side, are supposed to sit the most thorough-going supporters of the Government, while below it sit those who profess to be more independent, and give a general but not indiscriminate vote to the Ministry. Not that the line is too strictly drawn, and it is, to a certain extent, a cross-division, like that of the famous one of bread into white bread, black bread, and French rolls—for it would be easy to name members who sit above the gangway and occasionally speak and vote against particular measures of the Government; and still more easy to name some below the gangway to whom the word of a Minister is law, and who have never been guilty of the crime of thinking the Government in the wrong.

The same general distinction does not apply so strongly to the Opposition side of the House. The front row there above the gangway is occupied by the

ex-Ministers; but behind them sit many who, if the whirligig of fortune brought those ex-Ministers into power, would give them a good deal of trouble by their speeches and their votes. Below the gangway, however, on the Opposition (now the Liberal) side, the more Advanced Liberals, or Radicals, as they used to be called (although the name is falling into disuse), range themselves with undoubted preference. There sit Sir Charles Dilke, Sir Wilfrid Lawson, Mr. M'Laren, Mr. Rylands, Mr. Mundella, Mr. Anderson, Mr. Richard, Mr. Peter Taylor, Mr. Joseph Cowen, Professor Fawcett, and others, who are likely to cause no little embarrassment to any Liberal Government which asks for a majority on which it can steadily rely. There also, either on the front bench or on that immediately behind it, cluster the Irish members, whose watchword is Home Rule.

It is a rule that no one may cross an imaginary line drawn between the Speaker and a member who is addressing the House. When we say "addressing the House," we mean, addressing the Speaker; for every member who speaks, unless he is merely asking a question, is supposed to address Mr. Speaker, and not the assembly. And hence the reason of the rule just alluded to. As the Speaker is the person addressed, it would be an act of rudeness to interpose the body between him and the member who is speaking to him. Sometimes, however, in the heat of debate a member (especially if he be a new member) forgets that he is speaking to the Speaker, and apostrophises his audience; and we have more than once heard an excited member, full of recollections of some meeting of his constituents, say "Gentlemen!" instead of "Sir!"—an impropriety at once rebuked by loud cries of "Order! order!" As the rule about not crossing the line would sometimes necessitate a rather tortuous circumnavigation to enable a member to reach his seat, it is amusing to see how it is evaded by ducking the head and stooping and almost creeping along until the point of danger is passed.

No one may rise from his seat either to speak or change his place, or leave the House, without taking off his hat. In other words, whenever he is upon his

legs, he must be uncovered. And he may not cross the floor or walk up or down the House on entering or leaving it without making a bow or obeisance, as it is called in parliamentary language, to the Speaker. But let not the uninitiated imagine that it is a Sir Charles Grandison bow. The merest inclination of the head is sufficient; and it often looks more like a familiar nod to the awful occupant of the chair than a dignified homage to his authority. But still, however done, it is a mark of respect, and contributes something to the preservation of order and decorum. But as in the House of Lords the wool-sack is not part of the House, so in the House of Commons there are within its sacred precincts (exclusive of the lobbies) spaces where a degree of liberty is allowed that is denied elsewhere. On entering the House, you will see a line drawn across the matting of the floor from the seat occupied by the sergeant-at-arms to the opposite bench, and within this line members may *stand* with their hats off and listen to the debate; but outside of it they must *sit*, or be instantly called to "order." They cannot, however, address the House in this position; but if they wish to do so, must go to one of the benches and speak from that place. When Mr. Plimsoll began his impassioned attack on the Ministry for withdrawing their Merchant Shipping Bill in the session of 1875, he was standing at the door, but he had to move to the benches and continue his philippic there. There is also within the House a space behind the Speaker's chair where members may stand with their hats on—the reason of which, we suppose, is, that as it is a physical impossibility for Mr. Speaker to see them, they can show him no disrespect by being covered.

As the body of the House is by no means large enough to hold all the members on a full night, the overflow must betake itself to the galleries, and members may speak from them, although we never saw such a case actually happen. The general attitude of the occupants of the benches is hardly that which a sculptor or a painter would approve of. Perhaps we may best describe it as that of undignified ease. Some with hats on, and some with hats off, they may be seen lolling, lounging, sleeping, and even gently snoring. A favorite attitude of

one distinguished member is to sit with his legs crossed, and beat time with his foot to some imaginary tune.

Every variety of costume is admissible—from the evening dress-coat and white neckcloth, which frequently appears after dinner, to the pea-jacket and wide-awake—the latter happily confined to very few. When an embassy from Carthage entered the Senate-house at Rome, and saw the Conscript Fathers seated in their curule-chairs, they were so struck with their flowing *latioclaves*, the gravity of their aspect, and the dignity of their demeanor, that they exclaimed, "This is an assembly of kings!" If a Chinese embassy were to look down from the gallery of the House of Commons upon the scene below, with members bustling in and out and across the House, as if it were an ant-hill—with its cries of "Order," and cheers and counter-cheers, the frequently loud buzz of conversation, and sometimes inarticulate groans—we fear that it would be inclined to think that it was gazing upon a body of noisy school-boys. But if a question of profound interest is asked—say, for instance, as to the result of the Conference at Constantinople—then instantly all is mute silence and fixed attention. You might hear a pin drop or a mouse stir, and the faces of all the members are turned with eager and painful interest to the speaker.

Formerly the outside lobby was open to strangers who had, or pretended to have, business with members. But the inconvenience of the crowd was felt to be such that they are now excluded, and wait in the outside passage or hall until summoned by one of the door-keepers, who applies his mouth to a speaking-tube when the member who is asked for is ready to receive the applicant. When a debate on a subject of great interest is expected, the outside passages are filled by an impatient crowd, provided with orders for the strangers' gallery; and as these vastly exceed the number of places, the order of admission is determined by ballot amongst the strangers. There is, besides, a Speaker's gallery for peers, foreign ambassadors, and those whose names have been previously entered in a book kept for the purpose.

We shall now say something of the mode of procedure on an ordinary night.

Before the Speaker takes the chair, the

first thing done is to have prayers said by the chaplain. They are short and well-chosen: one for the Queen, another for the royal family, and a third for the Commons, praying the Almighty to grant that their deliberations may be conducted "without prejudice, favor, or partial affection." These are followed by the collect, "Prevent us, O Lord," and the whole occupies less than ten minutes. Only those members who are present at prayers have a right to keep the seats they have chosen for the rest of the sitting. This is done by depositing a card, on which the name is written, in a little brass groove on the rim of the bench; and however long the member may be absent afterwards, whenever he returns, the seat, although it may in the mean time have been occupied by another, is invariably given up to him. But how is a member to secure a particular seat at prayers? Several may have a fancy for it, and this might lead to unseemly jostling and controversy. It is managed thus: At any time before the meeting of the House, a member may place his hat on a seat, and this is a token (always respected) that he intends to occupy the seat at prayers; and if he does so, but not otherwise, he retains it as we have already mentioned. A practice of late has been creeping in of making a glove or a bundle of papers do duty for a hat; but this is improper, and, in fact, contrary to rule, for the presence of the hat is supposed to indicate that its owner is somewhere in the building, and merely absent for the moment; whereas an old glove might be put there by himself or a friend, or one of the policemen on duty, at any time in the morning, although the owner of the glove might then be miles away, and thus an unfair advantage would be gained. But we are glad to know that the door-keepers have become alive to this; and we have seen them walk off with the gloves or papers, for the well-settled reason that such waifs and strays are not allowed to keep a seat. Of course a trick might be played if an M.P. kept an old hat on the premises for the purpose, and got a friend to put it on a particular seat while he was himself away. But, to say nothing of the embarrassment of his having to deal with two hats—the one in his hand and the other on the seat—when he entered

the House, this would imply an unfairness of which no gentleman would be guilty. But it is not in all cases necessary to secure beforehand a seat. Even without the agency of the hat and card, by courtesy particular seats are considered to be appropriated to members who have long been in the habit of using them, and they are yielded to them without a murmur when they enter the House at any time. Who would think of keeping the seat of the venerable Nestor of the House, Mr. Henley, at the extreme end of the third bench above the gangway on the Ministerial side, when he comes to take possession of it? And as a general rule, even in placing the hat before prayers, respect is paid to the customary usage as regards a seat, and it is seldom that any difficulty occurs.

When the prayers are over, the chaplain walks out of the House backwards, bowing all the way; and if forty members, including himself, are present, the Speaker takes the chair. If the members look suspiciously few, he counts them, and if they do not muster forty, except on Wednesdays, the House immediately adjourns. We say "except on Wednesdays," when the House meets at 12 o'clock, and there is this curious rule. Every member who attends prayers on those mornings must wait imprisoned in the House until four o'clock, unless the number forty is sooner made up. This makes members rather shy of being present at prayers on a Wednesday when it seems likely that the attendance will be very thin. We ourselves were once caught in this way, and when we were innocently about to leave the House we were stopped by the sergeant-at-arms with a *molliter manus*, and compelled to stay. Since then we have been more wary, and have declined pressing invitations "just to go in and make a House."

The first thing done after prayers is the Private Business. But what is that? Is not all business in the House of Commons of a public nature? Not so. There are Public Bills and Private Bills. By Private Bills are meant such as do not affect the whole community, but only particular interests—for instance, Railway, Canal, Gas, Water, and Private Estate Bills. These Bills, when they have been read a second time in the House, are referred to Select Committees up-

stairs, who take evidence and examine witnesses, and report to the House whether the preamble is proved, and the Bill as amended by them ought to pass. The Chairman of each Committee, at the close of its labors, comes to the Bar of the House and holds up in his hand the Report. The Speaker, seeing him, calls on him by name. He states what he has in his hand, and then walks up the floor and deposits it on the table. The next step is the consideration of the Bill as amended by the Committee; and their amendments are generally, but not always, adopted as a matter of course. We say "not always," for it is open to any member to object to the further progress of the Bill; and we have known instances where, notwithstanding the report of a Select Committee in its favor, a Private Bill has been rejected by the House at large. The management of these Private Bills in the House is intrusted to a member appointed by the Speaker, and this duty has for many years been discharged ably and assiduously by Sir Charles Forster, M.P. for Walsall.

Next comes the presentation of Petitions. But stop! What do we hear? What happens now? The door of the House is suddenly closed, and three loud knocks are heard. "Open sesame!" and one of the door-keepers comes forward, and in a stentorian voice calls out, "Black Rod." Slowly, with many bows, up walks, with a cocked hat in one hand and a sort of sceptre in the other, a gentleman dressed in black shorts, and, like Roland the Just, "with ribbands in his shoes," who, reaching the table, and bowing to the Speaker, informs "this honorable House" that the Lords desire their presence to hear a Royal Commission read or the Royal Assent given to some Bills. He then goes backwards out of the House, bowing all the way, and we think it requires some practice and dexterity to do this without tumbling. The Speaker then leaves the chair, and, accompanied by a *posse comitatus* of such members as choose to follow him, goes to the Lords, and the House waits in confused groups until he returns.

But yet another unwonted apparition! Suddenly a thick brass bar is drawn across the House from the serjeant's seat to the opposite bench, and two gen-

tlemen clad in scarlet present themselves behind it—one of them with a paper in his hand. "What have you there, Mr. Sheriff?" asks the Speaker; and the answer is, "A petition from the Corporation of London." "Let it be brought up and laid upon the table." The two red-cloaked gentlemen then hand the petition to one of the clerks, who takes it to the table, and they retire. These were the two sheriffs of London, who, as all lawyers know, make the one sheriff of Middlesex—the only case, so far as we are aware, of "two single gentlemen rolled into one." From time immemorial it has been the custom of the Corporation of London to present their petitions by the hands of the sheriffs in this fashion; and petitions from the Corporation of Dublin are presented by their Lord Mayor in like manner. It was once proposed by Lord Cochrane that the same privilege should be extended to the Lord Provost of Edinburgh, but he was unsuccessful. Mr. Tierney, who opposed the motion, said "that the Scotch were generally thought a prudent people, and the Corporation of Edinburgh would know better than to send their Provost four hundred miles to present a petition." But that was before the days of railways. Once the mace of the Lord Mayor of Dublin was on such an occasion brought into the House, but it was ordered to be removed. No mace but that of the House itself, which Cromwell so irreverently called a "bauble," may awe the sight of the Commons of England. Long may the custom continue, so far as regards the Corporation of London; for it is the laudable practice of the sheriffs then to give an excellent dinner in the dining-room of the House to such of the members as they may choose to invite. Whether the expense of this comes from the pockets of the sheriffs or the funds of the Corporation, we know not, and have never cared to inquire.

But now as to Petitions. We fear that the public would be a little scandalised if they saw the way in which they are generally dealt with. There are two carpet-bags hanging on each side of the table; and the usual practice is not to rise and announce the presentation of a petition, but silently drop it into one of the bags. The member charged with it

first writes his name on the petition itself, and then writes his name and the subject-matter as shortly as possible on two pieces of paper, one of which is handed by a messenger of the House to a reporter of the 'Times,' and the other to the reporters of the other newspapers in the gallery. The House of Commons, therefore, *hears* nothing of these petitions; but next day they appear duly chronicled in the newspapers. But any member who likes to take the trouble, and wishes to hear the sound of his own voice, may wait until he is called upon by the Speaker (from a list of names before him), and rising in his place, he then mentions the name of the petitioners, and the subject-matter of the petition. He then walks to the bag and deposits the petition in it. He may, if he choose, require that the whole petition be read aloud by the clerk at the table; but this is really an idle ceremony, for it is very rarely that members pay attention to it—the buzz of conversation goes on, and it is thought a bore to listen. No comment whatever may be made on a petition (unless, indeed, notice is taken of something objectionable in it). It must be presented, and that is all. All of them are referred afterwards to a Committee on Public Petitions, who classify and arrange them, counting the number of signatures, and deciding which of them they consider of sufficient importance and interest to print. These are sent in due course, with other Parliamentary papers, to members at their respective addresses.

From what we have said, it might be thought that petitions are of no use. But this would be a great mistake. Although little attention is paid to them at the time of presentation, they become of great importance when the subject-matter to which they refer is embodied in a Bill, or a motion brought before the House. The number of petitions, and the number of signatures to them, for or against a particular measure, is generally dwelt upon with much force, as showing the state of feeling in the country on the question. It is amusing to see how this argument is met by those who are opposed to the views of the petitioners. They throw cold water upon the whole thing. They assert that nothing is easier than to get up petitions on

any subject. They find out that several of the signatures are written in the same hand, and they have heard that paid canvassers have been employed to procure signatures. In short, they do all they can to minimise the effect. But still the fact remains; and if a vastly preponderating number of petitions and signatures appears to be in favor of a measure, it is impossible not to recognise the weight that is due to them. For obvious reasons, no member likes to oppose a Bill in favor of which a majority of his constituents have petitioned. No doubt the right of petitioning is sometimes abused, and it is not difficult to get up a factitious show of popular feeling; but it is one of the most valuable privileges of the free citizens of a free country. It is as old as the time of Edward I.—that is, the right of petitioning Parliament, although no petitions have been found addressed exclusively to the House of Commons which are earlier than the reign of Richard II.

The language of petitions must be temperate and respectful, and contain no offensive imputations upon the constituted authorities. They must not allude to debates in either House of Parliament, nor to intended motions if merely announced in debate; but when notices have been given and printed with the votes, petitions referring to them may be presented. If a petition containing improper matter has been inadvertently received, when attention is called to this, the order (usual in all cases) that it do lie upon the table, may be read and discharged. There is one rule, not sufficiently known, that no petition may pray directly or indirectly for an advance of public money; and we have had a petition which we had presented returned to us by the Committee on Petitions because it violated this rule. It must not be supposed that we have exhausted this part of our subject; for there are many other technical rules, for which, however, we must refer those who are curious about the matter to that great repository of all Parliamentary law, Sir Erskine May's book.

Next come Notices of Motion. They may be notices of Questions, or Resolutions, or Bills, or in fact almost any conceivable subject on which it is desired to take the opinion of the House. Now,

here, we must go a little into detail, which we will endeavor not to make tedious. It may be readily imagined that a good many members are desirous of bringing forward questions on a future day, and it is necessary that there should be some rule determining their precedence. First, however, let us see what days there are available to private members for this purpose. Saturday is a *dies non*. Of the other days, Mondays and Thursdays are absolutely monopolised by that boa-constrictor the Government, and it is hopeless to give notice of any motion for either of these days. On Tuesdays motions take precedence of the Orders of the Day, which Orders mean generally those Bills which are appointed for discussion on that particular day. On Friday, Supply is always taken, but any number of members may give notice of motion "On Going into Supply," and these will be discussed before Supply in their order of precedence. Wednesday is appropriated absolutely to private members, and it is on that day that the private Bills introduced by them are almost always brought forward for second reading and debate.

The first point is to settle the order of precedence, and it is done in the following manner. There is a paper on the table called the Notice Paper, on which runs a row of printed figures from 1 onwards, with a space opposite to each figure on which any member may write his name. Let us suppose that 20 do this. The second clerk (Mr. Palgrave) then puts into a box 20 cards or pieces of paper, each inscribed with a separate number; and the third clerk (Mr. Milman) hands the Notice Paper to the Speaker who calls out, "Notices of Motion!" Mr. Palgrave then drops his hand into the box and calls out a number, say 5. The Speaker looks at the Notice Paper, sees what name is opposite that number, and calls upon the member, who rises and gives notice of the motion which he intends to bring forward, and the particular day he selects. The same process is then gone through with all the other figures and names, and thus the order of precedence is settled.

The great rush for notices is on the first day of the Session, when private members have pet Bills to bring forward, which they fondly hope may after

the due period of gestation come to the birth, and become Acts of Parliament. This is the time for airing all kinds of legislative crotchets and redeeming promises made to constituents. Poor innocents! the members little dream of the difficulties in their way. We shall suppose that it is the first day of the Session, and twenty-five members give notice that they will on the morrow ask leave of the House each to bring in a Bill. To-morrow comes, and the Speaker calls on each in his order of precedence, as previously determined. He rises and asks leave of the House to bring in his Bill, which as a matter of course is granted—and the Bill is then supposed to be read a first time, although it is not yet printed, and perhaps not yet even drawn.

In the course of the evening, when the other business has been disposed of, the twenty-five members march to the bar of the House, each armed with a blank sheet of foolscap folded into the shape of a brief, and tied round with a piece of green tape, on the back of which are written the title of the Bill, and the names of the members who are its sponsors, of whom there must be at least two. These "dummy" Bills are provided by the officers of the House. Holding them in their hands, the twenty-five members stand in close array at the bar until each is called upon by the Speaker in turn, according to his order of precedence, and goes to the table, when he is asked what day he wishes to fix for the second reading of his Bill. Now here comes the difficulty, and the opportunity for judgment and strategy. The session lasts from the middle or earlier part of February until the middle of August. This gives so many weeks, and of course so many Wednesdays. But then there must be deducted the Easter and Whitsuntide recess, Ash Wednesday, and the Derby day, which is always on a Wednesday, and the House does not then sit. Any Wednesday falling in these periods would be a *dies non*, and the luckless member who chose one of them would find the House closed. Moreover, to choose a Wednesday at the fag end of the session would be lost labor; for what chance would a private member have if he fixed the second reading of his bill in the sultry days of July, with a wearied

House and the slow delays of subsequent stages, and after that the House of Lords before him? It is therefore all-important to choose a Wednesday as early as possible for the second reading. Now the members who stand within the first twelve or even fourteen can have little or no difficulty, for each may choose a separate Wednesday during the first twelve or fourteen weeks, carefully eschewing those on which they know beforehand that the House will not sit. But they must not forget to note when Easter falls and when the Derby day is likely to occur. The case, however, is different with those who stand lower down on the list. Each naturally wishes to have the second reading of his little Bill taken before the end of May if possible, and how can he be sure that all the previous Wednesdays have not been already appropriated? He must listen attentively and hear what days have been chosen by those who have gone before him. Now, suppose that *all* the practically available Wednesdays have been appropriated. What is he to do? He must on the instant determine which of those Wednesdays seems most likely to afford an opening to squeeze in his own Bill. Of course its second reading can only come in upon that day after some Bill which has got precedence is disposed of. The question, therefore, is, which of the Bills before him is most likely to give rise to only a short debate? To decide this on the spot requires quickness, judgment, and discretion. For instance, suppose that a previous Wednesday has been chosen by Sir Wilfrid Lawson for his Permissive Bill. It is quite certain that the debate on this will last the whole day, and therefore *that* Wednesday may be dismissed from the category of possibilities. And we may say the same of almost any Irish or Scotch Bill; for the Irish are gluttons to talk, and the Scotch are gluttons to fight. But possibly some English member may have chosen a Wednesday for his Bill, which is of a quiet, innocent character, not likely to provoke much opposition, and no one else has named the same day for his own Bill to come after it. Here is a chance. "Surely," he says to himself, "that subject can not take up more than two or three hours, and I shall have the rest of the day for

introducing my own bantling to the favorable notice of the House." This is no imaginary case: *Experto crede*.

After Notices of Motion come Questions. The order of putting these is determined in the same way as the order of notice of motion. Any member who has given notice may put a question to a Minister, or indeed to any other member, upon any conceivable subject of public interest. It is, however, a most useful and indeed necessary rule, that no member, either in asking or answering a question, may make a speech. He must indulge in no comments, but confine himself strictly to question or answer. Otherwise it is clear that a long and irregular debate might ensue, and throw all the other business of the night out of gear. The range and variety of these questions are surprising, and nothing is too large, nothing too minute, for their scope. Some members seem to employ their time in hunting out cases of supposed hardship or catching up rumors in the newspapers, for the mere pleasure of catechising Ministers. We think that the member of the Government who is most badgered in this way is the Home Secretary. His duties are so miscellaneous and multifarious, that almost everything is supposed to come within his knowledge and jurisdiction. But the privilege of putting questions is an admirable safety-valve. It may be called the political catechism of the Ministry. And many an imaginary grievance is thus set at rest; many an unfounded report is authoritatively contradicted; and, at the same time, many an obscure wrong is redressed, and many a useful piece of information is given. Indeed, although the privilege of questioning is sometimes abused, we think it is difficult to exaggerate its utility and importance.

Of course there are different modes of answering a question. There is the full, the curt, the serious, the jocular, the courteous, and the sarcastic manner of reply. And the tone of the voice may convey a meaning which the words do not imply. Sometimes the way in which a question is answered is rather provoking to the member who puts it; and not unfrequently he then rises and says that he will repeat it to-morrow, or he will call the attention of the House to it on some future day. We think that no

Minister should take advantage of his position—which has advantages enough—to try and *snub* a member; and yet this has been done. It is well known that Lord Palmerston lost a good deal of his popularity, and some of his support in the House, by the flippant way in which, at one period of his career as Prime Minister, he answered questions that were put to him.

After the questions are over, the House proceeds to the Order of the Day; that is, a debate begins on some Bill or subject fixed for discussion.

When several members rise at the same moment, in the course of a debate, the Speaker has the absolute right of determining which of them shall address the House. This is called "catching the Speaker's eye," and happy is the man who succeeds in doing so. It is obvious that it affords the opportunity for some partiality and some favoritism. It is impossible to speak too highly of the perfect fairness of the present Speaker in this respect. Indeed it would be difficult to imagine that any one could surpass him in dignity of demeanor, courtesy of manners, and complete impartiality, to say nothing of his masterly knowledge of all the forms and usages of the House. It is a proud thing for any man to possess the confidence of the Commons of England, and to be able to rule such an assembly, even in their most heated moments, by that union of suavity and firmness which so eminently distinguishes the present occupant of the chair.

The first commoner of the land, elected by the gentlemen-commoners of England, has always shown himself, *par excellence*, a gentleman; and no finer type of this was ever exhibited than in the stately person of the former Speaker, Mr. Shaw Lefevre, now Viscount Eversley.

As to the rule, however, that the Speaker chooses whom he pleases to speak out of several rising at the same moment, there is one exception. By the courtesy of the House, a new member who has not yet spoken (we are not now speaking of the beginning of a new Parliament, when, of course, all are on an equal footing in this respect) is always allowed precedence; and even if a dozen others rise at the same time, the cry of "New member, new member," resounds on all sides, and the Speaker invariably

calls upon him. But let the new member beware. Much, very much depends upon a first impression. He may make or mar his opportunity. Not that failure in a first speech at all implies failure in the future. Remarkable examples of this, from Sheridan to Disraeli, are too well known to be quoted here. But the *kind* of failure is the thing to be noted. If it arises from nervousness, timidity, or excessive modesty, although distressing at the time, it proves nothing as to future capability of getting the ear of the House. The Commons of England are a generous body, and make every allowance for a first attempt when they see that there is modesty and mere nervousness in the speaker. But not so when he assumes a dictatorial, ambitious, or declamatory style, with plenty of fluency but little thought. The House does not like to be lectured by anybody, and to be lectured by a novice is intolerable. Let the new member banish from his mind all thoughts of Demosthenes, or Cicero, or Chatham, or Pitt, or Canning, or Gladstone, and try and remember that he is plain John Stubbs, who has something pertinent and useful to say, and wishes to say it in the simplest and clearest language. Even this is not so easy as might be supposed. The novelty of the position, the awful sight of two or three hundred upturned faces, the chilling silence of the House, the thought of the reporters and the far-distant constituents who are watching for the effect of the maiden speech of the member of their choice;—all these combined are enough to shake the nerves of a strong man; and we should augur badly for the success of any one who rose to address the House of Commons for the first time without an inward tremor. Indeed we believe that very few men worth listening to ever speak there without painful misgivings as to how they will acquit themselves. We have sometimes heard members take a desponding view of themselves on this account. But if this is all, they have no cause for fear. The greatest speakers have been those who have been diffident of themselves. Who was a more consummate orator than Cicero? and yet Cicero in his *De Oratore* puts into the mouth of Crassus the confession, *Equidem et in vobis animadvertere soleo, et in me*

ipso sapissime experior ut exalbescam principis dicendi, et totâ mente atque omnibus artubus contremisco. Who was more fluent—at times more eloquent—than Canning? and yet De Quincey tells us that even at a Mayor's dinner at Liverpool Canning was so nervous before he was called upon to speak that he twice left the room in order to collect his thoughts.

It is not unusual for a member who wishes to speak on a question to intimate his wish privately to the Speaker, and he may be sure of always meeting the most courteous attention. But let him not be too sanguine. The events of the evening may be too strong for him. Perhaps at the very moment when he thinks his chance most favorable, and he has risen, up gets a Minister and down he sits. For a Minister on the one side or a leader of Opposition on the other is naturally allowed by the Speaker to take precedence—and, indeed, the House would insist upon it. No one, therefore, has a right to complain of this. But oh the torture and agony of suspended speech! We have seen an unhappy member rise half-a-dozen times in the course of a debate, and each time fail to catch the Speaker's eye. His throat gets dry, his lips get parched, his hands get hot, his ideas become confused, and his nervous system is deranged, while he is eagerly waiting for the closing words of the speaker whom he wishes to follow; and then when he rises he hears another called upon. But there is something worse than the mere distress of waiting. He hears his pet argument anticipated, his cherished quotation forestalled; and, half in anger, half in disgust, he says to himself (if he knows Latin), *Percant isti qui ante nos nostra dixerunt.* The best opportunity for an outsider to make a speech generally occurs between half-past seven and nine P.M., when the great bulk of the members are dining either in the House or at the Clubs or elsewhere. The House is then generally at zero point; and a debate has often hardly vitality enough to be kept going. The stars refuse to shine in so obscure an atmosphere; in other words, the chief speakers refuse to speak, and "waste their sweetness on the desert"—benches. To be sure it is dispiriting to any one to have to address a

row of green seats opposite, empty of their former occupants, and to see member after member, even on his own side, slipping out of the House, with a base preference to beef and mustard rather than stay and listen to "thoughts that breathe and words that burn." But then there are the reporters, who never dine! The speech will take the wings of the morning and fly to the uttermost parts of the kingdom, though shorn perhaps of its fair proportions; and the speaker will get accustomed to the sound of his own voice—an acquaintance which is not so readily and easily made as some people imagine. After all, what matters it that the House has gone to dinner? There are fewer critics left to make unpleasant remarks, and the silence of solitude is not so awful as the silence of a multitude which refuses to be moved or stirred even to the utterance of a single "hear!" The travail is past—the speech is spoken, and if only a select few cared to stay and listen, so much the worse for the rest. He can go and dine with an easy conscience, for he has done his duty to his country, his constituents, and himself.

There can be no debate or discussion or speech when there is no question before the House; but a member may even then rise at any time and put himself in order by moving the adjournment of the House, and this gives him the opportunity of speaking on any subject he pleases. He generally prefaces his remarks by saying, "I will put myself in order by concluding with a motion," which means the adjournment of the House. A debate may thus spring up as unexpectedly as a sudden gale at sea, when the water previously has been as smooth as a duck-pond. The right of moving during a debate the adjournment of the House or the adjournment of the debate, is a powerful weapon in the hands of the minority to prevent the tyranny of the majority. For if the minority think that an attempt is being made to close a debate and force on a division prematurely, any one may at any time, when the previous speaker has sat down, move the adjournment of the debate or of the House, and if he finds a seconder, press his motion to a division. If beaten, another member may then rise and move the adjournment of the debate or of the House (alternat-

ing "debate" or "House," according to the terms of the former motion), and again divide. And so it may go on *toties quoties*, until the patience of one side or the other is exhausted, and it gives in. We have known [more than a dozen divisions, one after another, taken in this way, and the Commons of England have been occupied from near midnight to near the approach of dawn in the dignified task of trotting round the lobbies, while their constituents imagined that they were busily engaged on some important discussion *circum ardua regni*.

We have alluded to one advantage possessed by the occupants of the front benches—namely, the privilege of catching the Speaker's eye whenever they please once in the course of a debate. But there is another not so obvious, but still of exceeding value. Each of these speakers has the table immediately before him, on which he can place his notes and the books to which he wishes to refer, and he can rest with his arm upon it as often as he chooses. These are real helps, the want of which is painfully felt by those who are outside the charmed circle, and have to crumple their notes in their hand, and dive down in order to find some book which they wish to quote, and which very possibly has tumbled on to the floor. When a man has a desk or chair or table before him, there is much less chance of that feeling of lost bewilderment which sometimes comes over a speaker and paralyses his tongue.

Unlike the Tribune in France, no member in the House of Commons is allowed to read his speech. A story is told (we will not vouch for its truth) of a very distinguished lawyer who wrote out the whole of his speech, and placed it in his hat, which he held under his eyes when he rose, and his attitude and manner became so suspicious, that loud cries of "Read, read," were heard from all sides of the House. He, however, ventured on a fib, and assured the House that he was not reading his speech. They good-humoredly pretended to believe him, and allowed him to go on, although all the time he continued to cast his eyes down upon his mysterious hat.

It seems a paradox to say so, but, as a general rule, speeches both gain and lose in the newspaper reports. They gain

by being made grammatical. It is extraordinary how few speakers there are who do not break Priscian's head. If their speeches were reported *verbatim et literatim*, there is not a school-girl who would not detect numerous breaches of the laws of grammar. We remember hearing a member of Parliament say in an after-dinner speech at a public banquet, "Him and me is very good friends." We admit that this was an extreme case. But mistakes of grammar are all put right by the reporters. This is a decided gain. But, on the other hand, the necessity of abridgment—except in the case of a few leading and distinguished speakers—makes the reporter, in his hurried work, put down only catch-words in a sentence or chief points in an argument, which he afterwards fills up in his own manner. Many a pointed [sentence] thus becomes a platitude, and many a happy illustration is lost. We do not wish to make invidious comparisons; but it cannot be denied that the reporters of the 'Times' are unrivalled for their skill in seizing the salient points of a speech, and giving its pith and spirit, however much they may omit some of the details and shorten and transmute much of the phraseology.

When we look back to the fiery days of the first Reform Bill, and read the passionate language in which the speakers addressed the House—when we remember the fierce onslaughts of O'Connell, the bitter sarcasms of Stanley, and the strong invectives of Macaulay—we are struck with the difference between the tone of parliamentary oratory then, and its tone now. There is much more decorum, but it must be confessed there is much more dulness. Hardly ever—if ever—now are the feelings excited to fever heat, and the tameness of the thought is only equalled by the tameness of the expression. In fairness to our forefathers, who sometimes sinned against propriety, it must be remembered that there were in the first half of the present century great wrongs to be redressed, and great abuses to be swept away. There then existed a host of grievances and inequalities, now absolutely gone—and we cannot wonder that strong feeling produced strong language, and men thought more of what they had to say than the manner in which they

said it. But, indeed, the language of literature and society was much more plain-spoken then than it is now. It is curious and instructive to notice the difference between the tone of the newspaper press in those days and the present. Journalists flung epithets at each other with a reckless violence which would now be thought in the highest degree indecorous; and we could quote leading articles attacking rival journalists and public men in a manner that is happily now impossible.

In pagan times, when the softening influence of Christianity was unknown, we need not wonder that the orators of Greece and Rome expressed themselves with a vehemence of personality that shocks our feelings. The most astonishing specimen of scurrility on record is the speech attributed by Dio Cassius to Fufius Calenus in the Roman Senate, when he attacked Cicero, who had moved that rewards should be given to the legions that had joined Octavian at the commencement of the civil war. It is really too offensive to quote; but we do not believe that it was ever really spoken, for Fufius Calenus would not have *dared* to provoke the tremendous reply with which Cicero would have crushed him on the spot, if he had had the temerity to use such language.

The days of classical quotation in the House of Commons have almost passed away. Nor is this surprising when we consider the previous training, education, and habits of the majority of those who compose its body. We may regret it, but it cannot be helped. St. Paul told the Corinthians, "Let him that speaketh in an unknown tongue pray that he may interpret;" but it would not do for an orator, after he has quoted Cicero or Virgil, to be obliged to translate it for the benefit of his audience. We fear that even that noble passage at the close of the speech of Mr. Pitt on Mr. Wilberforce's motion for the abolition of the slave trade—uttered just as the rays of the morning sun were beginning to stream in through the windows of the House—would now fall upon ears little able to appreciate its beauty.

"Then also will Europe, participating in her improvement and prosperity, receive an ample recompense for the tardy kindness (if kindness it can be called)

of no longer hindering that continent from extricating herself out of the darkness which, in other more fortunate regions, has been so much more speedily dispelled—

'Nos primus equis Oriens afflavit anhelis;
Illic sera rubens accendit lumina Vesper.'

Then, sir, may be applied to Africa those words—originally used, indeed, with a different view—

'His demum exactis
Devenère locos lætos, et amœna vireta
Fortunatorum nemorum sedesque beatas:
Largior hic campos Æther, et lumine vestit
Purpureo.'"

But we have known Mr. Gladstone on more than one occasion quote a classic author with admirable effect. His very earnestness seemed to make everybody understand the words. We shall not soon forget the thrill that went through the House when, defending the late Lord Lyttelton, the loss of whose office as one of the Endowed Schools Commissioners was threatened by a Bill then under discussion, he exclaimed:—

"Sanguine placastis ventos et virgine cæsà
Quum primum Iliacas Danaï venistis ad
oras;
Sanguine quærendi reditus, animâque litan-
dum
Argolicâ."

It is curious to note the mannerism of different speakers, and see how inveterate is the habit of each. One distinguished member seems, while he speaks, to be always washing his hands, diversified by attempts to get hold of an imaginary pin in the back of his neck-collar. Another, at stated intervals, jerks out both his arms as if he were going to hold a baby. A third strokes his beard and pushes it up whenever he has uttered, or is about to utter, one of his numerous witticisms. A fourth stands with both his hands thrust down deep into his pockets, as if he were afraid of having them picked. Another drops his eyeglass at every third sentence, and his occupation is chiefly to recover it and try and fix it under his eyebrow. But it is strange how little graceful action is studied by Englishmen. Very different was the case with the orators of Greece and Rome. They knew all the importance of action as an accessory of speech, and it must have added no inconsiderable charm to the music of their eloquence.

No assembly, except, perhaps, a church congregation, is so easily moved to laughter by a slight matter as the House of Commons. And the reason in both cases is the same. Laughter generally arises from surprise, and a sense of the incongruous. Now, when men are seriously engaged, anything at all ludicrous comes upon them with a sharp sense of contrast and incongruity, and the emotional feeling it excites finds relief in a laugh. And thus the mildest joke is sure to provoke laughter in a serious audience. It is not often that so good an excuse for merriment is afforded as happened when, in the session before last, while the Secretary of State for War was speaking, a cat bounded along the floor of the House, and, springing over the benches at the lower end of the gangway, mysteriously disappeared. But the House of Commons is the slave of precedent; and for this there was a precedent exactly in point. We read in Cobbett's Parliamentary History (vol. xxiii. p. 455)—

"While Lord North was speaking, a dog who happened to find his way into the House began to bark, and set all the members in a roar. Lord North laughed heartily; and when the House was restored to order, he threw it again into the loudest fit of laughter by jocosely addressing the Chair: 'Sir, I was interrupted by a new speaker [was he the member for *Barkshire*?]; but as his argument is concluded, I will resume mine.'"

One golden rule of the House is to forbid all personalities. It is with this view, more than any other, that no member is allowed to speak of another by his name, but must always use the periphrasis, "the honorable member for So-and-so." In this respect, it is favorably contrasted with all similar assemblies in the world; for in the French, German, and American parliaments, the laws of courtesy and good-breeding are sometimes grievously infringed. It was only the other day that, in the French Chamber of Deputies, M. Paul de Cassagnac taunted M. Menier with being a seller of chocolate; and M. Menier retorted by saying that he had supplied it to M. de Cassagnac's uncle (who was a grocer). If, in the heat and excitement of debate, a member of the English House of Commons transgresses the laws of courtesy, he is loudly and promptly called to

order; and it rarely happens, perhaps we should say nowadays never, that he does not instantly withdraw the language and express his regret. This teaches the habit of moderation, and prevents personal quarrels. It pours the oil of courtesy over the troubled waters of political strife. Indeed the general tone of the House is in the highest degree generous. The only thing it will not tolerate is boredom, and the only persons it will not tolerate are bores. But it is patient and forbearing almost to excess when any member has a personal grievance to complain of, or a personal explanation to make. He has only to throw himself upon the indulgence of the House, and if he has made a mistake, to confess it and apologise, and he may with tolerable certainty reckon not only upon forgiveness but applause.

When the House grows weary of a protracted debate, it has significant means of showing its temper. Cries of "Divide, divide;" "Question, question," echo from a hundred throats; and inarticulate groans are the melody which greets the ear and drowns the voice of the unhappy member who persists in inflicting his tediousness upon it. At last he sits down, and no one dares to get up and face the surging storm of "Divide, divide." Then rises the Speaker and puts the question for the decision of the House. If it is the second reading of a Bill to which the amendment "that it be read this day six months" has been moved, he says the question before the House is "that such and such a Bill be now read a second time, since which an amendment has been moved to leave out the word 'now' and substitute 'this day six months.'" The question which I have to put to the House is that the words proposed to be left out stand part of the question. Those who are of that opinion will say Ay; the contrary No." Of course those who wish the second reading to be carried desire the word "now" to stand, and not "this day six months," and therefore they cry out Ay, while the opponents of the Bill cry out No. The Speaker, then judging of the preponderance of the voices, says, "I think the Ayes have it," or "I think the Noes have it," as the case may be. And, in passing, we may say that we hardly ever, if ever, knew the Speaker to be wrong as

to the ultimate result. But the opinion of the Speaker may be instantly challenged by any member who calls out "The Noes have it," or "The Ayes have it," in opposition to what has just been said from the chair—which, after all, only amounts to "I think." If the voice or voices in opposition are only faint, the Speaker generally repeats his opinion; but if any voice again challenges this, there is only one course left. "Strangers must withdraw," says Mr. Speaker, and a division is imminent. He names two tellers for each side; and a sand-glass on the table, which runs for two minutes, is turned down, to give members time to get into the House. Electric bells sound immediately in all the rooms and passages, and policemen shout out "Division," at the doors of the library, the reading-room, the smoking-room, and elsewhere. In they rush, helter-skelter, some even from St. Stephen's Club, at the end of Westminster Bridge (for the Club has an electric wire of its own), if they can run hard enough, and are not afraid of apoplexy; and it is amusing to hear them say to one another, or to the Whips of their own side, "Which side are we?" "Are we Ayes or Noes?" many of them having heard little or nothing of the debate. When the sand of the glass has run down, the door of the House is closed, and the Speaker again puts the question to the assembled members in exactly the same form as before. Sometimes those who challenged his previous decision have in the mean time thought better of it, or have been persuaded to abandon the opposition; and in that case, when the Speaker says, "I think the Ayes" (or the Noes) "have it," dumb silence follows, and then he no longer says "I think," but boldly and decisively declares, "The Ayes" (or the Noes) "have it," which settles finally the question of the second reading of the Bill. But if his opinion has been again challenged, he says, "The Ayes to the right, the Noes to the left;" and those who wish to vote Ay pass the Speaker's chair on his right hand, and go into the lobby on the right; while those who wish to vote No walk down the House and pass through its inner door to the lobby on the left. In each of these lobbies at the farther end stands a desk, like that of an auctioneer, covered with green

baize, and there is a narrow passage on each side for members to go through. Two division clerks stand at each desk, and each of them marks by a long dash on printed lists the names of the members who pass through on his side. The two passages are for the convenience of allowing facility for getting through; and one-half of the members present at the division in each lobby goes, according to the initial letter of their names (from A to H and from I to Z), in the one passage or the other. Having got through the turnpike, they go through the door at the end of the lobby, where two tellers, one from the side of the Ayes and the other from the side of the Noes, keep watch and ward; and as each member passes them he lifts his hat, and the tellers keep audible count of the number. Each of these, of course, acts as a check upon the other, so as to prevent the possibility of a mistake. When this operation has been gone through in both lobbies, and the tellers are all agreed upon the numbers, they come into the House and take their places in a row of four, standing a little distance in front of the table. The usage is to allow the tellers of the side that is victorious to stand on the right hand, and read out the numbers when they have advanced to the table.

If the division takes place at a late hour, and there is nothing more of interest to detain the House, great is the rush down-stairs for carriages and cabs. The door leading to the stairs is always kept locked until the result of the division is announced, and in the meantime a crowd of members has gathered round it, impatient to be released, and each anxious to be foremost in the race, for the members are many and the cabs are few. Some take the precaution to engage a cab beforehand, but with the mass it is "first come, first served;" and as the tide rushes on, the courtyard resounds with the cries of policemen shouting out "hansom," "four-wheeler."

We have said that members must always rise and stand when they speak; but to this there is one curious exception. If, while a division is going on, any one wishes to speak on some point of order connected with the division, he must do so sitting. We do not pretend to know the reason of this; but possibly

it may be that as all the members are on their legs during a division, it prevents confusion if the member who speaks assumes a sitting posture. But it is sufficient to say that such is the rule—and let no man presume to question the wisdom of Parliament.

While on the subject of rules of speaking, we may mention that in general, except when the House is in Committee, no member is allowed to speak more than once on the same question. If he has moved the second reading of a Bill with a speech, he has no right of reply; but if he has merely brought forward a motion, he may reply. The reason for this distinction is too technical to be worth explaining. But, of course, if an amendment has been moved to the second reading of his Bill, he may speak on that; for then there is a question before the House different from that which he brought before it, which was "that the Bill be now read a second time."

There is one rule which is at first a little puzzling. It is that when supply is the order of the day (of which motions always take precedence), only one motion can be affirmed or negatived, however many may be *discussed*. The reason is this—Supply can be only granted in Committee, and to get into Committee the Speaker must leave the chair, and have his place supplied by the Chairman of Ways and Means. When, therefore, the order of the day—"Supply Committee"—is read by the clerk at the table, the Speaker rises and says, "The question is, that I now leave the chair." But the member whose motion stands first for that day has the right thus to bring it forward. How is this technically done? We will suppose that it is a motion calling upon the House to affirm that the Declaration of Paris ought to be no longer considered binding, or that the advance of Russia in Central Asia is menacing to India, or that the income tax is assessed on a wrong principle, or anything else that the reader chooses to imagine. The Speaker, therefore, has to put the terms of the motion before the House as an *amendment* to the question, "That I now leave the chair;" which is, in fact, to insert after the word "that" the terms of the motion, instead of the words "I now leave the chair." Well, this question is

debated, and the motion is, we will suppose, negatived. The House has, by its decision, affirmed that the words proposed to be left out, namely, "I now leave the chair," shall not be left out; and therefore they must stand, and cannot be altered on the same evening by bringing forward another motion which, just in the same way as the first, would necessarily be put as an amendment to the question that "I now leave the chair," the affirmative of which the House had already determined. It would, we fear, be tedious to show that on the same principle, if the first motion is affirmed, an analogous consequence follows; but the result is, that the remaining motions can no longer be put as questions for discussion on that evening, and can only be spoken to—or, in other words, the attention of the House is called to them without any definite result.

An ingenious mode of evading a decision upon a troublesome or inconvenient question is by "moving the previous question," the meaning of which, at first sight, is certainly far from clear. When the "*previous question*" is put as an amendment to some other question (which we shall call the main or original question), the words of the motion are, "that the question" (that is, the main question) "be *now* put." Those, therefore, who are anxious to shelve the main question without voting on it, vote when the previous question is put in the negative—that is, that the main question shall *not* be put; and if the negative votes prevail, the Speaker, of course, is prevented from putting the main question, which is the object aimed at. It may, however, be brought forward on a subsequent day; for all that the House has determined is that it shall not be put *now*. If the "*previous question*" is decided in the affirmative, it means that the main question shall be *now* put, and no further amendment or debate is allowed, but the House proceeds at once to vote upon it. The peculiarity of the proceeding is, that the mover and seconder of the previous question and all who agree with them, vote against it; "being thus," as Sir Erskine May says, "the most prominent opponents of the question they themselves proposed." But the process of thought rightly to understand all this at the time is too severely logical,

and some confusion is caused in the minds of members. We remember once that an honorable member who did wish the main question to be put, cried out, "No," when the previous question was put, and was appointed by the Speaker one of the tellers for the Noes; so that he was actually obliged to vote that the main question should *not* be put, in direct defiance of his intention and wish.

We have said that when the House is in Committee a member may speak on a question as often as he likes. But why and how does the House get into Committee? Supply is always discussed and voted in Committee; and whenever the second reading of a Bill has been carried, its clauses are considered in Committee, which enables members to discuss minutely their provisions, in an almost conversational tone. When an order of the day, appointing a particular Bill for Committee, is reached, the Clerk of the House reads out the title of the Bill, and adds "Committee." The Speaker then immediately vacates the chair, and at the same moment the Sergeant-at-Arms walks to the table, and lifting up the mace, deposits it on two supports below the edge. The absence of this symbol from the surface of the table is a sure sign that the House is in Committee. Another actor now appears upon the scene. The Chairman of Committee (Mr. Cecil Raikes) appears from behind the Speaker's chair, and takes the place of the Chief Clerk at the table. The Speaker's chair is of course vacant; but would any one be bold enough to occupy it? Yes! even so. Any member who chooses may, while the House is in Committee, seat himself in the chair, and fancy himself Speaker for the moment, although he has not a shadow of power or authority more than if sitting on one of the benches. It is simply a vacant seat, which any one may take who chooses. We well remember how we rubbed our eyes with astonishment when, instead of the flowing wig and silk gown of Mr. Speaker, we first saw the black hat and rough pea-jacket of an honorable member who had ensconced himself in the chair. We need not pursue the subject of Committees farther, nor attempt to unravel the intricacies of their proceedings, which Mr. Cecil Raikes, or his predecessor, perhaps alone

thoroughly understands. It will be enough to say, that when the House has finished or got tired of its work in Committee, Mr. Raikes puts the question, "That I now report progress;" which being carried *sub silentio*, he quits his seat, the Speaker reappears (often as if by magic), the Sergeant-at-Arms walks up and replaces the mace on the table, and the House is immediately constituted "as you were" again.

Shall we explain to our fair readers the way in which they get access to the Ladies' Gallery? As that gallery holds only a limited number, and there is considerable competition for places, the right of each member to nominate two for a particular evening, which must always be a week in advance, is determined by ballot. Immediately after prayers, a cluster is formed round the seat of the Sergeant-at-Arms, who has before him a book in which names for the gallery are entered. If the seats wanted (two to each member) seem to be more than the gallery can contain, the members rush off into the lobby, and write their names down on a slip of paper, which they fold up and hand to Colonel Forester, the Assistant-Sergeant, who puts them into a glass bowl, just like one for gold-fish, and after mixing them up with his hand, he takes them out at hap-hazard, one after another, calling out each time the name of the lucky individual (who must be present and answer on pain of losing his chance), which is written in the book, with the names of the two ladies whom he wishes to get into the gallery.

It would be a serious omission in an attempt to describe the interior of the House of Commons not to mention the Smoking-room, the scene of so much good-humor and good-fellowship. The House has been called the best Club in London, and we think this description eminently applies to the Smoking-room. Here, in a good-sized but not very comfortable chamber, opening out upon the Terrace, all party distinctions are forgotten and political feuds are laid aside. Over its doors might be written the words of Dante, with one alteration—

"Voi ch'entrate lasciate ogni discordia."

Here, amidst clouds of smoke, curling upwards from pipe and cigar, there is nothing but peace—we will not say

quiet, for there is plenty of noisy talk. Here some of the best stories are told, and the best jokes made or repeated. Here many acquaintances are made, and some friendships are formed. You may hate Home Rule in the House, but you cannot dislike Home Rulers in the Smoking-room. There are no more cheery and companionable men than most of the Irish members. Warm-hearted, quick-witted, and impulsive, they form an amusing contrast to the sedate Scotch and reserved English; but sedateness and reserve are apt to melt away under the genial influence of whisky and tobacco. It is a pleasant relief to seek refuge there from the strife of tongues, and the dull tediousness of a prosy debate, or to step out upon the Terrace when the moon is silvering the river, and enjoy the cool breeze and silence of the night.

We have thus rapidly sketched some of the features of the House of Commons; and although we have ventured now and then on a jocular tone, it must not be supposed that the life of an M.P. is an idle or very amusing life. He has plenty of hard work if he chooses to do it. To say nothing of select committees and fair participation in the ordinary business of the session, such as making speeches and asking questions and depriving himself of rest and sleep to be present at divisions, he has deputations to receive and to introduce, and a cloud of correspondence to get through. Constituents generally think that their member has immense influence with the Treasury, and that he has only to ask for a favor to get it. The real truth is, that he usually gets a civil promise of attention to his request, and there the matter ends. Places are few, and the number of applicants is legion. He must therefore be content to be passed over, and digest his chagrin as best he can, thinking, perhaps, twice of how he shall be inclined to vote on the next occasion when pressed by the Ministerial Whip.

The labors of the House of Commons are, however, too great for it. It almost breaks down under its self-imposed weight. It undertakes more than it can accomplish, and professes to do more than it can possibly perform. Hence Government measures promised in the

Royal Speech are either not brought forward or not passed into law, and the attempts at legislation by private members result at the end of the session in a melancholy catalogue of dead corpses. At first, like a spendthrift, the House is prodigal of its time; and towards the close, like a miser it clutches at every hour. All kinds of suggestions have been made, and all sorts of schemes proposed, to remedy the gigantic evil of waste of time; but hitherto in vain. *Labitur et labetur.* We ourselves think that the most effectual remedy would be to limit by an hour-glass (as was the case in Greece and Rome) the duration of a speech, or to adopt the French system of *la clôture*. Of course liberal exceptions ought to be made which could be easily provided for. We find it difficult to believe that the man who cannot say what he has to say in twenty minutes or half an hour can be worth listening to for an hour. Of course there are objections that may be urged against this, as there may be against anything. There are arguments, said Dr. Johnson, against a *plenum*, and arguments against a *vacuum*, and yet one of the two must be true. The question is, on which side would the balance of advantage be? On the one hand we should gain in economy of time, precision of thought, and compression of language; and on the other we should lose a wilderness of talk and an infinity of repetition, and surely the loss would be a gain.

In conclusion, we will say that we do not believe any written description can give a just idea of the lofty tone of honor and fairness which distinguishes the House of Commons. It is the Grand Inquest of the Nation, where every alleged grievance is sure to receive a patient hearing; and if it is a real grievance, and redress is possible, the wrong will be set right. Every man may there declare his opinion without fear or favor, and will be sure to receive an attentive hearing if he deserves it. He may not have the gift of eloquence, and may fail as an orator, where, as Milton says, "that immortal garland is to be won, not without dust and heat." But if he cannot influence the senate with his tongue, he can affect a division by his vote; and the most talkative members

are by no means those who are most useful or most respected. The little asperities of debate are soon forgotten, and make no breach in friendship, goodwill, and mutual regard. We know no tribunal by which we would prefer to be judged in a matter, not political, which required candor, equity, and good sense in the judges; and perhaps as Englishmen we may be allowed to express our sincere conviction that the House of Commons is the first assembly of gentlemen in the world.—*Blackwood's Magazine*.

HÆMONY.

BY ELLICE HOPKINS.

'Among the rest a small unsightly root,
But of divine effect, he culled me out;
The leaf was darkish, and had prickles on it,
But in another country, as he said,
Bore a bright golden flower, but not in this soil; . . .
He called it Hæmony."—MILTON.

A LITTLE dust the summer breeze
Had sifted up within a cleft,
A slanted raindrop from the trees,
A tiny seed by chance airs left,—
It was enough, the seedling grew,
And from the barren rock-heart drew
Her dimpled leaf and tender bud,
And dews that did the bare rock stud;
And crowned at length her simple head
With utter sweetness, breathed afar,
And burning like a dusky star,—
Sweetness upon so little fed,
Ah me! ah me!
And yet hearts go un comforted.

For hearts, dear love, such seedlings are,
That need so little, ah, so less
Than little on this earth, to bear
The sun-sweet blossom, happiness;
And sing,—those dying hearts that come
To go,—their swan-song flying home.
A touch, a tender tone, no more,
A face that lingers by the door
To turn and smile, a fond word said,
A kiss,—these things make heaven; and yet
We do neglect, refuse, forget
To give that little, ere 'tis fled,
Ah me! ah me!
And sad hearts go un comforted.

I asked of thee but little, nay,
Not for the golden fruit thy bough
Ripens for thee and thing who day
By day beneath thy shadow grow;
Only for what, from that full store,
Had made me rich, nor left thee poor,
A drift of blossom, needed not
For fruit, yet blessing some dim spot.
A touch, a tender word soon said,

Fond tones that seem our dead again
 Come back after long years of pain,
 Lonely, for these my sick heart bled—
 Ah me! ah me!
 Sad hearts that go un comforted.

OTHER WORLDS AND OTHER UNIVERSES.

BY RICHARD A. PROCTOR, B.A., F.R.S.

If anyone shall gravely tell me that I have spent my time idly in a vain and fruitless inquiry after what I can never become sure of, the answer is that at this rate he would put down all natural philosophy, as far as it concerns itself in searching into the nature of such things. In such noble and sublime studies as these, 'tis a glory to arrive at probability, and the search itself rewards the pains. But there are many degrees of probable, some nearer to the truth than others, in the determining of which lies the chief exercise of our judgment. And besides the nobleness and pleasure of the studies, may we not be so bold as to say that they are no small help to the advancement of wisdom and morality?—
 HUYGHENS, *Conjectures concerning the Planetary Worlds*.

THE interest with which astronomy is studied by many who care little or nothing for other sciences is due chiefly to the thoughts which the celestial bodies suggest respecting life in other worlds than ours. There is no feeling more deeply seated in the human heart—not the belief in higher than human powers, not the hope of immortality, not even the fear of death—than the faith in realms of life where other conditions are experienced than those we are acquainted with here. It is not vulgar curiosity or idle fancy that suggests the possibilities of life in other worlds. It has been the conviction of the profoundest thinkers, of men of highest imagination. This mystery of the star depths has had its charm for the mathematician as well as for the poet; for the exact observer as for the most fruitful theoriser; nay, for the man of business as for him whose life is passed in communing with nature. If we analyse the interest with which the generality of men inquire into astronomical matters apparently not connected with the question of life in other worlds, we find in every case that it has been out of this question alone or chiefly that that interest has sprung. The great discoveries made during the last few years

respecting the sun, for example, might seem remote from the subject of life in other worlds. It is true that Sir William Herschel thought the sun might be the abode of living creatures; and Sir John Herschel even suggested the possibility that the vast streaks of light called the solar willow-leaves, objects varying from two hundred to a thousand miles in length, might be living creatures whose intense lustre was the measure of their intense vitality; but modern discoveries have rendered all such theories untenable. The sun is presented to us as a mighty furnace, in whose fires the most stubborn elements are not merely melted but vaporised. The material of the sun was analysed, the motions and changes taking place on his surface were examined, the laws of his being were determined. How, it might be asked, was the question of life in other worlds involved in these researches? The faith of Sir David Brewster in the sun as the abode of life being dispelled, how could discoveries respecting the sun interest those who care about the subject of the plurality of worlds? The answer to these questions is easily found. The real interest which solar researches have possessed for those who are not astronomers has resided in the evidence afforded respecting the sun's position as the fire, light, and life of the system of worlds whereof our world is one. The mere facts discovered respecting the sun would be regarded as so much dry detail were they not brought directly into relation with our earth and its wants, and therefore with the wants of the other earths which circle round the sun; but when thus dealt with they immediately excite attention and interest. I do not speak at random in asserting this, but describe the result of widely ranging observation. I have addressed hundreds of audiences

in Great Britain and America on the subject of recent solar discoveries, and I have conversed with many hundreds of persons of various capacity and education, from persons almost uncultured to men of the highest intellectual power; and my invariable experience has been that solar research derives its chief interest when viewed in relation to the sun's position as the mighty ruler, the steadfast sustainer, the beneficent almoner of the system of worlds to which our earth belongs. It is the same with other astronomical subjects. Few care for the record of lunar observations, save in relation to the question whether the moon is or has been the abode of living creatures. The movements of comets and meteors, and the discoveries recently made respecting their condition, have no interest except in relation to the position of these bodies in the economy of solar systems, or to the possible part which they may at one time have performed in building up worlds and suns. None save astronomers, and few only of these, care for researches into the star-depths, except in connection with the thought that every star is a sun, and therefore probably the light and fire of a system of worlds like those which circle around our own sun.

It is singular how variously this question of life in other worlds has been viewed at various stages of astronomical progress. From the time of Pythagoras, who first, so far as is known, propounded the general theory of the plurality of worlds, down to our own time when Brewster and Chalmers on the one hand, and Whewell on the other, have advocated rival theories probably to be both set aside for a theory at once intermediate to and more widely ranging in time and space than either, the aspect of the subject has constantly varied, as new lights have been thrown upon it from different directions. It may be interesting briefly to consider what has been thought in the past on this strangely attractive question, and then to indicate the view towards which modern discoveries seem manifestly to point—a view not likely to undergo other change than that resulting from clearer vision and closer approach. In other words, I shall endeavor to show that the theory to which we are now led by all the known

facts is correct in generals, though, as fresh knowledge is obtained, it may undergo modification in details. We now see the subject from the right point of view, though as science progresses we may come to see it more clearly and definitely.

When men believed the earth to be a flat surface above which the heavens were arched as a tent or canopy, they were not likely to entertain the belief in other worlds than ours. During the earlier ages of mankind ideas such as these prevailed. The earth had been fashioned into its present form and condition, the heavens had been spread over it, the sun, and moon, and stars, had been set in the heavens for its use and adornment, and there was no thought of any other world.

But while this was the general belief, there was already a school of philosophy where another doctrine had been taught. Pythagoras had adopted the belief of Apollonius Pergæus that the sun is the centre of the planetary paths, the earth one among the planets—a belief inseparable from the doctrine of the plurality of worlds. Much argument has been advanced to show that this belief never was adopted before the time of Copernicus, and unquestionably it must be admitted that the theory was not presented in the clear and simple form to which we have become accustomed. But it is not necessary to weigh the conflicting arguments for and against the opinion that Pythagoras and others regarded the earth as not the fixed centre of the universe. The certain fact that the doctrine of the plurality of worlds was entertained (I do not say adopted) by them, proves sufficiently that they can not have believed the earth to be fixed and central. The idea of other worlds like our earth is manifestly inconsistent with the belief that the earth is the central body around which the whole universe revolves.

That this is so is well illustrated by the fate of the unfortunate Giordano Bruno. He was one of the first disciples of Copernicus, and, having accepted the doctrine that the earth travels round the sun as one among his family of planets, was led very naturally to the belief that the other planets are inhabited. He went farther, and maintained that as

the earth is not the only inhabited world in the solar system, so the sun is not the only centre of a system of inhabited worlds, but each star a sun like him, about which many planets revolve. This was one of the many heresies for which Bruno was burned at the stake. It is easy, also, to recognise in the doctrine of many worlds as the natural sequel of the Copernican theory, rather than in the features of this theory itself, the cause of the hostility with which theologians regarded it, until, finding it proved, they discovered that it is directly taught in the books which they interpret for us so variously. The Copernican theory was not rejected—nay, it was even countenanced—until this particular consequence of the theory was recognised. But within a few years from the persecution of Bruno, Galileo was imprisoned, and the last years of his life made miserable, because it had become clear that in setting the earth adrift from its position as centre of the universe, he and his brother Copernicans were sanctioning the belief in other worlds than ours. Again and again, in the attacks made by clericals and theologians upon the Copernican theory, this lamentable consequence was insisted upon. Unconscious that they were advancing the most damaging argument which could be conceived for the cause they had at heart, they maintained, honestly but unfortunately, that with the new theory came the manifest inference that our earth was not the only and by no means the most important world in the universe—a doctrine manifestly inconsistent (so they said) with the teachings of the Scriptures.

It was naturally only by a slow progression that men were able to advance into the domain spread before them by the Copernican theory, and to recognise the real minuteness of the earth both in space and time. They more quickly recognised the earth's insignificance in space, because the new theory absolutely forced this fact upon them. If the earth, whose globe they knew to be minute compared with her distance from the sun, is really circling around the sun in a mighty orbit many millions of miles in diameter, it follows of necessity that the fixed stars must lie so far away that even the span of the earth's orbit is reduced to nothing by comparison with the vast

depths beyond which lie even the nearest of those suns. This was Tycho Brahe's famous and perfectly sound argument against the Copernican theory. 'The stars remained fixed in apparent position all the time, yet the Copernicans tell us that the earth from which we view the stars is circling once a year in an orbit many millions of miles in diameter; how is it that from so widely ranging a point of view we do not see widely different celestial landscapes? Who can believe that the stars are so remote that by comparison the span of the earth's path is a mere point?' Tycho's argument was of course valid.* Of two things one. Either the earth does not travel round the sun, or the stars are much farther away than men had conceived possible in Tycho's time. His mistake lay in rejecting the correct conclusion because simply it made the visible universe seem many millions of times vaster than he had supposed. Yet the universe, even as thus enlarged, was but a point to the universe visible in our day, which in turn will dwindle to a point compared with the universe as men will see it a few centuries hence; while that or the utmost range of space over which men can ever extend their survey is doubtless as nothing to the real universe of occupied space.

Such has been the progression of our ideas as to the position of the earth in space. Forced by the discoveries of Copernicus to regard our earth as a mere point compared with the distances of the nearest fixed star, men gradually learned to recognise those distances which at first had seemed infinite as in their turn evanescent even by comparison with that mere point of space over which man is able by instrumental means to extend his survey. Though there has been a similar progression in men's ideas as to the earth's position in time, that progression has not been carried to a corre-

* Not 'of course' because Tycho used it, for, like other able students of science, he made mistakes from time to time. Thus he argued that the earth cannot rotate on her axis, because if she did bodies raised above her surface would be left behind—an argument which even the mechanical knowledge of his own time should have sufficed to invalidate, though it is still used from time to time by paradoxers of our own day.

sponding extent. Men have not been so bold in widening their conceptions of time as in widening their conceptions of space. It is here and thus that, in my judgment, the subject of life in other worlds has been hitherto incorrectly dealt with. Men have given up as utterly idle the idea that the existence of worlds is to be limited to the special domain of space to which our earth belongs; but they are content to retain the conception that the domain of time to which our earth's history belongs, this 'bank and shoal of time' on which the life of the earth is cast, is the period to which the existence of other worlds than ours should be referred.

This, which is to be noticed in nearly all our ordinary treatises on astronomy, appears as a characteristic peculiarity of works advocating the theory of the plurality of worlds. Brewster and Dick and Chalmers, all in fact who have taken that doctrine under their special protection, reason respecting other worlds as though, if they failed to prove that other orbs are inhabited *now*, or are at least *now* supporting life in some way or other, they failed of their purpose altogether. The idea does not seem to have occurred to them that there is room and verge enough in eternity of time not only for activity but for rest. They must have all the orbs of space busy at once in the one work which they seem able to conceive as the possible purpose of those bodies—the support of life. The argument from analogy which they had found effective in establishing the general theory of the plurality of worlds, is forgotten when its application to details would suggest that not *all* orbs are *at all times* either the abode of life or in some way subserving the purposes of life. We find, in all the forms of life with which we are acquainted, three characteristic periods—first, the time of preparation for the purposes of life; next, the time of fitness for those purposes; and thirdly, the time of decadence tending gradually to death. And we see among all objects which exist in numbers, examples of all these stages existing at the same time. In every race of living creatures there are the young as yet unfit for work, the workers, and those past work; in every forest there are saplings, seed-bearing trees, and trees long past the seed-bearing

period. We know that planets, or rather speaking more generally, the orbs which people space, pass through various stages of development, during some only of which they can reasonably be regarded as the abode of life or supporting life; yet the eager champion of the theory of many worlds will have them all in these stages of preparation, none in any of the stages of decrepitude or death.

This has probably had its origin in no small degree from the disfavor with which in former years the theory of the growth and development of planets and systems of planets was regarded. Until the evidence became too strong to be resisted, the doctrine that our earth was once a baby world, with many millions of years to pass through before it could be the abode of life, was one which only the professed atheist (so said too many divines) could for a moment entertain; while the doctrine that not the earth alone, but the whole of the solar system, had developed from a condition utterly unlike that through which it is now passing, could have had its origin only in the suggestions of the Evil One. Both doctrines were pronounced to be so manifestly opposed to the teachings of Moses, and not only so, but so manifestly inconsistent with the belief in a Supreme Being, that—that further argument was unnecessary, and denunciation only was required. So confident were divines on these points, that it would not have been very wonderful if some few students of science had mistaken assertion for proof, and so concluded that the doctrines towards which science was unmistakably leading them really were inconsistent with what they had been taught to regard as the Word of God. Whether multiplied experiences taught men of science to wait before thus deciding, or however matters fell out, it certainly befell before very long that the terrible doctrine of cosmical development was supported by such powerful evidence, astronomical and terrestrial, as to appear wholly irresistible. Then, not only was the doctrine accepted by divines, but shown to be manifestly implied in the sacred narrative of the formation of the earth and heavens, sun, and moon, and stars; while upon those unfortunate students of science who had not changed front in good time, and were found still arguing

on the mistaken assumption that the development of our system was not accordant with that ancient narrative, freshly forged bolts were flung from the Olympus of orthodoxy.

So far as the other argument—from the inconsistency of the development theory with belief in a Supreme Being—was concerned, the student of science was independent of the interpretations which divines claim the sole right of assigning to the ancient books. Science has done so much more than divinity (which in fact has done nothing) to widen our conceptions of space and time, that she may justly claim full right to deal with any difficulties arising from such enlargement of our ideas. With the theological difficulty science would not care to deal at all, were she not urged to do so by the denunciations of divines; and when, so urged, she touches that difficulty, she is quickly told that the difficulty is insuperable, and not long after that it has no existence, and (on both accounts) that it should have been left alone. But with the difficulty arising from the widening of our ideas respecting space and time, science may claim good, almost sole, right to deal. The path to a solution of the problem is not difficult to find. At a first view, it does seem to those whose vision had been limited to a contracted field, that the wide domain of time and space in which processes of development are found to take place is the universe itself, that to deny the formation of our earth by a special creative act is to deny the existence of a Creator, that to regard the beginning of our earth as a process of development is to assert that development has been in operation from the beginning of all things. But when we recognise clearly that vastness and minuteness, prolonged and brief duration, are merely relative, we perceive that in considering our earth's history we have to deal only with small parts of space and brief periods of time, by comparison with all space and all time. Our earth is very large compared with a tree or an animal, but very small compared with the solar system, a mere point compared with the system of stars to which the sun belongs, and absolutely as nothing compared with the universe of space; and in like manner, while the periods of her growth and development occupy

periods very long-lasting compared with those required for the growth and development of a tree or an animal, they are doubtless but brief compared with the eras of the development of our solar system, a mere instant compared with the eras of the development of star-systems, and absolutely evanescent compared with eternity. We have no more reason for rejecting the belief in a Creator because our earth or the solar system is found to have developed to its present condition from an embryonic primordial state, than we have had ever since men first found that animals and trees are developed from the germ. The region of development is larger, the period of development lasts longer, but neither the one nor the other is infinite; and being finite, both one and the other are simply nothing by comparison with infinity. It is a startling thought, doubtless, that periods of time compared with which the life of a man, the existence of a nation, nay, the duration of the human race itself, sink into insignificance, should themselves in turn be dwarfed into nothingness by comparison with periods of a still higher order. But the thought is not more startling than that other thought which we have been compelled to admit—the thought that the earth on which we live, and the solar system to which it belongs, though each so vast that all known material objects are as nothing by comparison, are in turn as nothing compared with the depths of space separating us from even the nearest among the fixed stars. One thought, as I have said, we have been compelled to admit, the other has not as yet been absolutely forced upon us. Though men have long since given up the idea that the earth and heavens have endured but a few thousand years, it is still possible to believe that the birth of our solar system, whether by creative act or by the beginning of processes of development, belongs to the beginning of all time. But this view cannot be regarded as even probable. Although it has never been proved that any definite relation must subsist between time (occupied by events) and space (occupied by matter), the mind naturally accepts the belief that such a relation exists. As we find the universe enlarging under the survey of science, our conceptions of the duration

of the universe enlarge also. When the earth was supposed to be the most important object in creation, men might reasonably assign to time itself (regarded as the interval between the beginning of the earth and the consummation of all things when the earth should perish) a moderate duration; but it is equally reasonable that, as the insignificance of the earth's domain in space is recognised, men should recognise also the presumable insignificance of the earth's existence in time.

In this respect, although we have nothing like the direct evidence afforded by the measurement of space, we yet have evidence which can scarcely be called in question. We find in the structure of our earth the signs of its former condition. We see clearly that it was once intensely hot; and we know from experimental researches on the cooling of various earths that many millions of years must have been required by the earth in cooling down from its former igneous condition. We may doubt whether Bischoff's researches can be relied upon in details, and so be unwilling to assign with him a period of 350 millions of years to a single stage of the process of cooling. But that the entire process lasted tens of millions and probably hundreds of millions of years cannot be doubted. Recognising such enormous periods as these in the development of one of the smallest fruits of the great solar tree of life, we cannot but admit at least the reasonableness of believing that the larger fruits (Jupiter, for instance, with 340 times as much matter, and Saturn with 100 times) must require periods still vaster, probably many times larger. Indeed, science shows not only that this view is reasonable, but that no other view is possible. For the mighty root of the tree of life, the great orb of the sun, containing 340 *thousand* times as much matter as the earth, yet mightier periods would be needed. The growth and development of these, the parts of the great system, must of necessity require much shorter time-intervals than the growth and development of the system regarded as a whole. The enormous period when the germs only of the sun and planets existed as yet, when the chaotic substance of the system had not yet blossomed into

worlds, the mighty period which is to follow the death of the last surviving member of the system, when the whole scheme will remain as the dead trunk of a tree remains after the last leaf has fallen, after the last movement of sap within the trunk—these periods must be infinite compared with those which measure the duration of even the mightiest separate members of the system.

But all this has been left unnoticed by those who have argued in support of the Brewsterian doctrine of a plurality of worlds. They argue as if it had never been shown that every member of the solar system, as of all other such systems in space, has to pass through an enormously long period of preparation before becoming fit to be the abode of life, and that after being fit for life, for a period very long to our conceptions, but by comparison with the other exceedingly short, it must for countless ages remain as an extinct world. Or else they reason as though it had been proved that the relatively short life-bearing periods in the existence of the several planets must of necessity synchronise, instead of all the probabilities lying overwhelmingly the other way.

While this has been (in my judgment) a defect in what may be called the Brewsterian theory of other worlds, a defect not altogether dissimilar has characterised the opposite or Whewellite theory. Very useful service was rendered to astronomy by Whewell's treatise upon, or rather against, the plurality of worlds, calling attention as it did to the utter feebleness of the arguments on which men had been content to accept the belief that other planets and other systems are inhabited. But some among the most powerfully urged arguments against that belief tacitly relied on the assumption of a similarity of general condition among the members of the solar system. For instance, the small mean density of Jupiter and Saturn had, on the Brewsterian theory, been explained as probably due to vast hollow spaces in those planets' interiors—an explanation which (if it could be admitted) would leave us free to believe that Jupiter and Saturn may be made of the same materials as our own earth. With this was pleasantly intermixed the conception that the inhabitant of these planets may have his 'home

in subterranean cities warmed by central fires, or in crystal caves cooled by ocean tides, or may float with the Nereids upon the deep, or mount upon wings as eagles, or rise upon the pinions of the dove, that he may flee away and be at rest,' with much more in the same fanciful tone. We now know that there can be no hollow more than a few miles below the crust of a planet, simply because, under the enormous pressures which would exist, the most solid matter would be perfectly plastic. But while Whewell's general objection to the theory that Jupiter or Saturn is in the same condition as our earth thus acquires new force, the particular explanation which he gave of the planet's small density is open to precisely the same general objection. For he assumes that, because the planet's mean density is little greater than that of water, the planet is probably a world of water and ice with a cindery nucleus, or in fact just such a world as would be formed if a sufficient quantity of water in the same condition as the water of our seas were placed at Jupiter's greater distance from the sun, around a nucleus of earthy or cindery matter large enough to make the density of the entire planet thus formed equal to that of Jupiter, or about one-third greater than the density of water. In this argument there are in reality two assumptions, of precisely the same nature as those which Whewell set himself to combat. It is first assumed that some material existing on a large scale in our earth, and nearly of the same density as Jupiter, must constitute the chief bulk of that planet, and secondly that the temperature of Jupiter's globe must be that which a globe of such material would have if placed where Jupiter is. The possibility that Jupiter may be in an entirely different stage of planetary life—or, in other words, that the youth, middle life, and old age of that planet may belong to quite different eras from the corresponding periods of our earth's life—is entirely overlooked. Rather, indeed, it may be said that the extreme probability of this, on any hypothesis respecting the origin of the solar system, and its absolute certainty on the hypothesis of the development of that system, are entirely overlooked.

A fair illustration of the erroneous nature of the arguments which have been

used, not only in advocating rival theories respecting the plurality of worlds, but also in dealing with subordinate points, may be presented as follows:

Imagine a wide extent of country covered with scattered trees of various size, with plants and shrubs, flowers and herbs, down to the minutest known. Let us suppose a race of tiny creatures to subsist on one of the fruits of a tree of moderate size, their existence as a race depending entirely on the existence of the fruit on which they subsist, while the existence of the individuals of their race lasts but for a few minutes. Furthermore, let there be no regular fruit season either on their tree or in their region of vegetable life, but fruits forming, growing, and decaying all the time.

Let us next conceive these creatures to be possessed of a power of reasoning respecting themselves, their fruit world, the tree on which it hangs, and to some degree even respecting such other trees, plants, flowers, and so forth, as the limited range of their vision might be supposed to include. It would be a natural thought with them, when first they began to exercise this power of reasoning, that their fruit home was the most important object in existence, and themselves the chief and noblest of living beings. It would also be very natural that they should suppose the formation of their world to correspond with the beginning of time, and the formation of their race to have followed the formation of their world by but a few seconds. They would conclude that a Supreme Being had fashioned their world and themselves by special creative acts, and that what they saw outside their fruit world had been also specially created, doubtless to subserve their wants.

Let us now imagine that gradually, by becoming more closely observant than they had been, by combining together to make more complete observations, and above all by preserving the records of observations made by successive generations, these creatures began to obtain clearer ideas respecting their world and the surrounding regions of space. They would find evidence that the fruit on which they lived had not been formed precisely as they knew it, but had undergone processes of development. The distressing discovery would be made that

this development could not possibly have taken place in a few seconds, but must have required many hours, nay, even several of those enormous periods called by us days.

This, however, would only be the beginning of their troubles. Gradually the more advanced thinkers and the closest observers would perceive that not only had their world undergone processes of development, but that its entire mass had been formed by such processes—that in fact it had not been created at all, in the sense in which they had understood the word, but had *grown*. This would be very dreadful to these creatures, because they would not readily be able to dispossess their minds of the notion that they were the most important beings in the universe, their domain of space co-extensive with the universe, the duration of their world coextensive with time. But passing over the difficulties thus arising, and the persecution and abuse to which those would be subjected who maintained the dangerous doctrine that their fruit home had been developed not created, let us consider how these creatures would regard the question of other worlds than their own. At first they would naturally be unwilling to admit the possibility that other worlds as important as their own could exist. But if after a time they found reason to believe that their world was only one of several belonging to a certain tree system, the idea would occur to them, and would gradually come to be regarded as something more than probable, that those other fruit worlds, like their own, might be the abode of living creatures. And probably at first, while as yet the development of their own world was little understood, they would conceive the notion that all the fruits, large or small, upon their tree system were in the same condition as their own, and either inhabited by similar races or at least in the same full vigor of life-bearing existence. But so soon as they recognised the law of development of their own world, and the relation between such development and their own requirements, they would form a different opinion, if they found that only during certain stages of their world's existence life could exist upon it. If, for instance, they perceived that their fruit world must once have been so bitter

and harsh in texture that no creatures in the least degree like themselves could have lived upon it, and that it was passing slowly but surely through processes by which it would become one day dry and shrivelled and unable to support living creatures, they would be apt, if their reasoning powers were fairly developed, to enquire whether other fruits which they saw around them on their tree system were either in the former or in the latter condition, and if they found reason to believe certain fruits were in one or other of these stages, they would regard such fruits as not yet the abode of life or as past the life-supporting era. It seems probable even that another idea would suggest itself to some among their bolder thinkers. Recognising in their own world in several instances what to their ideas resembled absolute waste of material or of force, it might appear to them quite possible that some, perhaps even a large proportion, of the fruits upon their tree were not only not supporting life at the particular epoch of observation, but never had supported life and never would—that, through some cause or other, life would never appear upon such fruits even when they were excellently fitted for the support of life. They might even conceive that some among the fruits of their tree had failed or would fail to come to the full perfection of fruit life.

Looking beyond their own tree—that is, the tree to which their own fruit world belonged—they would perceive other trees; though their visual powers might not enable them to know whether such trees bore fruit, whether they were in other respects like their own, whether those which seemed larger or smaller were really so, or owed their apparent largeness to nearness, or their apparent smallness to great distance. They would be apt perhaps to generalise a little too daringly respecting these remote tree-systems, concluding too confidently that a shrub or a flower was a tree-system like their own, or that a great tree, every branch of which was far larger than their entire tree-system, belonged to the same order and bore similar fruit. They might mistake also in forgetting the probable fact that as every fruit in their own tree-system had its own period of life, very brief compared with the en-

tire existence of the fruit, so every tree might have its own fruit-bearing season. Thus, contemplating a tree which they supposed to be like their own in its nature, they might say, 'Yonder is a tree-system crowded with fruits, each the abode of many myriads of creatures like ourselves,' whereas in reality the tree might be utterly unlike their own, might not yet have reached or might long since have passed the fruit-bearing stage, might when in that stage bear fruit utterly unlike any they could even imagine, and each such fruit during its brief life-bearing condition might be inhabited by living beings utterly unlike any creatures they could conceive.

Yet again, we can very well imagine that the inhabitants of our fruit world, though they might daringly overleap the narrow limits of space and time within which their actual life or the life of their race was cast, though they might learn to recognise the development of their own world and of others like it, even from the very blossom, would be utterly unable to conceive the possibility that the tree itself to which their world belonged had developed by slow processes of growth from a time when it was less even than their own relatively minute home.

Still less would it seem credible to them, or even conceivable, that the whole forest region to which they belonged, containing many orders of trees differing altogether from their own tree-system, besides plants and shrubs, and flowers and herbs (forms of vegetation of whose use they could form no just conception whatever), had itself grown; that once the entire forest domain had been under vast masses of water—the substance which occasionally visited their world in the form of small drops; that such changes were but minute local phenomena of a world infinitely higher in order than their own; that that world in turn was but one of the least of the worlds forming a yet higher system; and so on *ad infinitum*. Such ideas would seem to them not merely inconceivable, but many degrees beyond the widest conceptions of space and time which they could regard as admissible.

Our position differs only in degree, not in kind, from that of these imagined creatures, and the reasoning which we

perceive (though they could not) to be just for such creatures is just for us also. It was perfectly natural that before men recognised the evidences of development in the structure of our earth they should regard the earth and all things upon the earth and visible from the earth as formed by special creative acts precisely as we see them now. But so soon as they perceived that the earth is undergoing processes of development and has undergone such processes in the past, it was reasonable, though at first painful, to conclude that on this point they had been mistaken. Yet as we recognise the absurdity of the supposition that, because fruits and trees grow and were not made in a single instant as we know them, therefore there is no Supreme Being, so may we justly reject as absurd the same argument, enlarged in scale, employed to induce the conclusion that because planets and solar systems have been developed to their present condition, and were not created in their present form, therefore there is no Creator, no God. I do not know that the argument ever has been used in this form; but it has been used to show that those who believe in the development of worlds and systems must of necessity be atheists, an even more mischievous conclusion than the other; for none who had not examined the subject would be likely to adopt the former conclusion, but many might be willing to believe that a number of their fellow-men hold obnoxious tenets, without enquiring closely or at all into the reasoning on which the assertion had been based.

But it is more important to notice how our views respecting other worlds should be affected by those circumstances in the evidence *we* have, which correspond with the features of the evidence on which the imagined inhabitants of the fruit world would form their opinion. It was natural that when men first began to reason about themselves and their home they should reject the idea of other worlds like ours, and perhaps it was equally natural that when first the idea was entertained that the planets may be worlds like ours, men should conceive that all those worlds are in the same condition as ours. But it would be, or rather it *is*, as unreasonable for men to

maintain such an opinion now, when the laws of planetary development are understood, when the various dimensions of the planets are known, and when the shortness of the life-supporting period of a planet's existence compared with the entire duration of the planet has been clearly recognised, as it would be for the imagined inhabitants of a small fruit on a tree to suppose that all the other fruits on the tree, though some manifestly far less advanced in development and others far more advanced than their own, were the abode of the same forms of life, though these forms were seen to require those conditions, and no other, corresponding to the stage of development through which their own world was passing.

Viewing the universe of suns and worlds in the manner here suggested, we should adopt a theory of other worlds which would hold a position intermediate between the Brewsterian and the Whewellite theories. (It is not on this account that I advocate it, let me remark in passing, but simply because it accords with the evidence, which is not the case with the others.) Rejecting on the one hand the theory of the plurality of worlds in the sense implying that all existent worlds are inhabited, and on the other hand the theory of but one world, we should accept a theory which might be entitled the Paucity of Worlds, only that relative not absolute paucity must be understood. It is absolutely certain that this theory is the correct one, if we admit two postulates, neither of which can be reasonably questioned—viz., first, that the life-bearing era of any world is short compared with the entire duration of that world; and secondly, that there can have been no cause which set all the worlds in existence, not simultaneously, which would be amazing enough, but (which would be infinitely more surprising) in such a way that after passing each through its time of preparation, longer for the large worlds and shorter for the small worlds, they all reached at the same time the life-bearing era. But quite apart from this antecedent probability, amounting as it does to absolute certainty if these two highly probable postulates are admitted, we have the actual evidence of the planets we can examine—that evidence proving incontest-

ably, as I have shown elsewhere, that such planets as Jupiter and Saturn are still in the state of preparation, still so intensely hot that no form of life could possibly exist upon them, and that such bodies as our moon have long since passed the life-bearing stage, and are to all intents and purposes defunct.

But may we not go further? Recognising in our own world, in many instances, what to our ideas resembles waste—waste seeds, waste lives, waste races, waste regions, waste forces—recognising superfluity and superabundance in all the processes and in all the works of nature, should it not appear at least possible that some, perhaps even a large proportion, of the worlds in the multitudinous systems peopling space, are not only not now supporting life, but never have supported life and never will? Does this idea differ in kind, however largely to our feeble conceptions it may seem to differ in degree, from the idea of the imagined creatures on a fruit, that some or even many fruits excellently fitted for the support of life might not subserve that purpose? And as those creatures might conceive (as we *know*) that some fruits, even many, failed to come to the full perfection of fruit life, may not we without irreverence conceive (as higher beings than ourselves may *know*) that a planet or a sun may fail in the making? We cannot say that in such a case there would be a waste or loss of material, though we may be unable to conceive how the lost sun or planet could be utilised. Our imagined insect reasoners would be unable to imagine that fruits plucked from their tree-system were otherwise than wasted, for they would conceive that their idea of the purpose of fruits was the only true one; yet they would be altogether mistaken, as we may be in supposing the main purpose of planetary existence is the support of life.

In like manner, when we pass in imagination beyond the limits of our own system, we may learn a useful lesson from the imagined creatures' reasoning about other tree-systems than that to which their world belonged. Astronomers have been apt to generalise too daringly respecting remote stars and star-systems, as though our solar system were a true picture of all solar systems, the

system of stars to which our sun belongs a true picture of all star-systems. They have been apt to forget that, as every world in our own system has its period of life, short by comparison with the entire duration of the world, so each solar system, each system of such systems, may have its own life-bearing season, infinitely long according to our conceptions, but very short indeed compared with the entire duration of which the life-bearing season would be only a single era.

Lastly, though men may daringly overleap the limits of time and space within which their lives are cast, though they may learn to recognise the development of their own world and of others like it even from the blossom of nebulousity, they seem unable to rise to the conception that the mighty tree which during remote æons bore those nebulous blossoms sprang itself from cosmical germs. We are unable to conceive the nature of such germs; the processes of development affecting them belong to other orders than any processes we know of, and required periods compared with which the inconceivable, nay, the inexpressible periods required for the development of the parts of our universe are as mere instants, yet have we every reason which analogy can afford to believe that even the development of a whole universe such as ours should be regarded as but a minute local phenomenon of a universe infinitely higher in order, that universe in turn but a sin-

gle member of a system of such universes, and so on, even *ad infinitum*. To reject the belief that this is possible is to share the folly of beings such as we have conceived regarding their tiny world as a fit centre whence to measure the universe, while yet, from such a stand-point, this little earth on which we live would be many degrees beyond the limits where for them the inconceivable would begin. To reject the belief that this is not only possible, but real, is to regard the few short steps by which man has advanced towards the unknown as a measurable approach towards limits of space, towards the beginning and the end of all things. Until it can be shown that space is bounded by limits beyond which neither matter nor void exists, that time had a beginning before which it was not and tends to an end after which it will exist no more, we may confidently accept the belief that the history of our earth is as evanescent in time as the earth itself is evanescent in space, and that nothing we can possibly learn about our earth, or about the system it belongs to, or about systems of such systems, can either prove or disprove aught respecting the scheme and mode of government of the universe itself. It is true now as it was in days of yore, and it will remain true as long as the earth and those who dwell on it endure, that what men know is nothing, the unknown infinite.—*Belgravia Magazine*.

WITS AND WITTICISMS.

SHAKESPEARE's statement, that 'a jest's prosperity lies not in the tongue of him who makes it,' is unhappily not quite correct. It often lies not only in his tongue, but in his manner of speaking it, and in the occasion which brings it forth; and all these advantages are lost when it is retold. In works, therefore, such as Timbs' *Anecdote Lives of the later Wits and Humorists* (Bentley) before us, the editor has a much more difficult task, and one less likely to be appreciated than may be supposed. With the exception too of Douglas Jerrold and one or two others, whose sayings have not only been 'extremely quoted,' as Præd expresses

it, but published, it is very hard to discover what they said. A wit is in this view almost as unfortunate as an actor, since if we have neither seen nor heard him, we are not likely to be in a position to judge how great a wit he was. On the other hand, a work of this kind is very useful in putting the saddle on the right horse, and also in tracing the accepted witticism to its true source.

For example, no *bon mot* has been in more general use of late than that attributed to Sir George Cornwall Lewis. 'How pleasant would life be but for its amusements; and especially if there was no such thing as "a little music" in the

world.' Now, the germ of this, as Mr. Timbs shews us, is to be found in Talleyrand's *Memoirs*. 'Is not Geneva dull?' asked a friend of his. 'Yes,' he replied, 'especially when they amuse themselves.'

There has been no one like Talleyrand for cynicism; for though Jerrold has a reputation for bitter aloes, there was generally some fun about his satire, which prevented irritation on the part of its object. Imagine a lady hearing that this had been said of her: 'She is insupportable;' with the addition (as if the prudent statesman had gone too far, and wished to make amends): 'that is her only defect.' Thulieres, who wrote on the Polish Revolution, once observed: 'I never did but one mischievous work in my life.' 'And when will it be ended?' inquired Talleyrand. It was he who remarked upon the murder of the Duke d'Enghien, that 'it was worse than a crime; it was a blunder.' Curiously enough, Charles Buller said of this 'that such an expression could never be uttered by an Englishman, and could be heard by no Englishman without disgust;' and yet this saying has been more quoted of late—and seriously too—than almost any other, both by our statesmen and our newspaper writers. Madame de Staël drew a portrait of him, as an elderly lady, in her novel of *Delphine*, and also of herself as the heroine. 'They tell me,' said he, 'that we are both of us in your novel in the disguise of women.' Perhaps his very best witticism was upon an old lady of rank, who married a *valet de chambre*, and it was made at the whist-table. 'Ah,' said he, 'it was late in the game: at nine* we don't reckon honors.'

A very different sort of Wit was Archbishop Whately; for though he was caustic enough, he could be comical, and even did not shrink from a pun. This is generally a low species of wit, but it must be remembered that perhaps the very best 'good thing' that was ever uttered, Jerrold's definition of dogmatism (grown-up puppyism), included it. Pinel was speaking to the archbishop about the (then) new and improved treatment of lunatics, and mentioned that garden-

ing was found to be a good occupation for them. 'I should doubt that,' replied His Grace; 'they might grow madder.' He once confounded a horse-dealer who was endeavoring to sell him a very powerful animal. 'There is nothing, your Grace,' said he, 'which he can't draw.' 'Can he draw an inference?' inquired Whately. It is curious how many now popular jokes and even riddles emanated from the brain of the Archbishop of Dublin: What Joan of Arc was made of; the difference between forms and ceremonies; why a man never starves in the Great Desert, &c. The answer to the following he withheld; it has puzzled many persons who make nothing of a double acrostic, and will probably continue to do so:

When from the Ark's capacious round
The beasts came forth in pairs,
Who was the first to hear the sound
Of boots upon the stairs?

One of his great pleasures was to poke fun at people who will think philosophically upon questions that only require the commonest of common-sense. He propounded to a whole roomful of divines the problem: 'Why do white sheep eat so very much more than black sheep?' There were all sorts of reasons suggested. One profound person thought since black attracted the sun, that black sheep could get on with less nutriment than the others. Dr. Whately shook his head: 'White sheep eat more because there are more of them.'

The archbishop was the very personification of shrewdness, and he was not afraid to say what he thought.

'Concealment,' he observed, 'is a good spur to curiosity, which gives an interest to investigation, and the *Letters of Junius* would have been long forgotten if the author could have been clearly pointed out at the time.' This is very true, though few would have had the courage to say it. The *Letters of Junius* are inferior to those of *The Englishman* (also, by-the-bye, anonymous), published in the *Times* newspaper some years ago, and even inferior to many of the biting personal articles (beneath contempt, viewed in that light) printed later still in the *Queen's Messenger*.

Lord John Russell, like 'Single-speech Hamilton,' said one good thing, on which

* They played long-whist in those times; we should say of course 'at four' nowadays.

we believe his reputation in that line rests; he defined a proverb as 'The wisdom of many and the wit of one.' Rogers observed it was the only saying for which he envied any man, and Rogers was a good judge. Sydney Smith said of the latter's slow habit of composition, that 'when he produced a couplet he went to bed, the knocker was tied up, straw laid down, the caudle made, and that the answer to inquirers was, that Mr. Rogers was as well as could be expected.' And he was almost as elaborate with his sayings as with his verses. When they were said, however, they were very good. 'When Croker wrote his review in the *Quarterly* upon Macaulay's *History*, Rogers remarked that he had "intended murder, but committed suicide."

A great advantage bestowed on us by the publication of these volumes is that they contain several famous things which are not to be found elsewhere, or only with much difficulty. One of these is Lord Byron's *Question and Answer* upon Rogers, which (if we remember right) is suppressed, and at all events is not to be found in many editions of his works; another, of a very different kind, is Albert Smith's 'Engineer's Story,' which used to convulse the audience in the Egyptian Hall. Of course one misses the hubble-bubble of the pipe, and the inimitable manner with which the narrator informed us: 'He told me the stupidest story I ever heard in my life, and now I am going to tell it to you.'

There are some very disappointing things in this work, which, however, are not to be laid at the door of Mr. Timbs; a good many wits appear in it, who—for all that is related of them—never made a witticism. Dr. Maginn, for example, had a great reputation, but it has not outlived him, and nothing we read here of him impresses us favorably, or indeed at all. 'Father Prout' also, as the Rev. Francis Mahoney called himself, may have been a most charming companion, but he is very dull reading. We are afraid that whisky had a good deal to do with the exhilaration experienced in their society by these gentlemen's friends. Even John Hookham Frere—when he comes to be 'fried,' as the Americans call it—was not so much of a joker, and made a little wit go a very long way. It is true that the farther we go back the

less likely it is that good sayings should be preserved; but those that are preserved should be worth hearing. On the other hand, all that is written stands on the same ground, and it is certain that the examples given of the more modern writers are much superior to those of their elder brothers.

Of the seniors, Canning is one of the most remarkable, though the impression that he was greatly overrated by his contemporaries is not to be eluded. In many respects he reminds us of the living Disraeli. Moore says of him, in his *Life of Sheridan*, that he joined the Tories 'because of the difficulties which even genius like his would experience in rising to its full growth under the shadowy branches of the Whig aristocracy;' and generally the interest attaching to him, as in the case of the present Premier, is of a personal character. His mode of life was, for statesmen of that day, domestic, and he is said to have invented the now popular game of 'Twenty Questions.' In the example here given of it, however, the answers are not simply 'Yes' and 'No,' so that the thing which is to be guessed must have been very much more easily arrived at, and his 'power of logical division' need not have been overwhelming. As a drawing-room wit he had a great reputation; but as a statesman, Sydney Smith gives this characteristic account of him: 'His being "in office" is like a fly in amber. Nobody cares about the fly; the only question is, How the mischief did it get there? When he is jocular, he is strong; when he is serious, he is like Samson in a wig. Call him a legislator, a reasoner, and the conductor of the affairs of a great nation, and it seems to me as absurd as if a butterfly were to teach bees to make honey. That he is an extraordinary writer of small poetry, and a diner-out of the highest metre, I do most readily admit.' He certainly said some very injudicious things in parliament; for example, his description of the American navy—'Half-a-dozen fir frigates with bits of bunting flying at their heads'—excited Cousin Jonathan, as it well might, beyond all bounds. He compared Lord Sidmouth (Mr. Addington), because he was included in every ministry, to the small-pox, 'since everybody must have it once in their lives.'

His wittiest verses perhaps occur in the poem composed on the tomb of Lord Anglesey's leg, lost at Waterloo :

And here five little ones repose,
Twin-born with other five ;
Unheeded of their brother toes,
Who all are now alive.

A leg and foot, to speak more plain,
Lie here of one commanding ;
Who though he might his wits retain,
Lost half his understanding. . . .

And now in England, just as gay,
As in the battle brave,
Goes to the rout, the ball, the play,
With one leg in the grave. . . .

Fate but indulged a harmless whim ;
Since he could *walk* with one,
She saw two legs were lost on him
Who never meant to *run*.

A very lively poem, no doubt ; but how inferior, when compared with one on a somewhat similar subject by Thomas Hood, namely, *Ben Battle* :

Said he : ' Let others shoot,
For here I leave my *second* leg,
And the *forty-second* foot.'

Comparisons, however, are odious ; and it would be especially odious to Mr. Canning to pursue this one.

Of the once famous Captain Morris, we read that his poems reached a twenty-fourth edition. But where are they now ? His verses were principally Anacreontic ; his *To my Cup* received the gold cup from the Harmonic Society ; but they are greatly inferior to Tom Moore's. In Hood's line, however, he was more successful, and his *Town and Country* might well have been written by that great humorist himself :

Oh, but to hear a milkmaid blithe,
Or early mower whet his scythe
The dewy meads among !
My grass is of that sort, alas !
That makes no hay—called sparrow-grass
By folks of vulgar tongue. . . .

Where are ye, birds that blithely wing
From tree to tree, and gaily sing,
Or mourn in thicket deep ?
My cuckoo has some ware to sell ;
The watchman is my Philomel,
My blackbird is a sheep !

The above is excellent ; nor is the Captain less felicitous in describing the other view of the subject—which was no doubt his own—namely, the disadvantages of a rustic life :

In London I never know what to be at,
Enraptured with this, and transported with that ;

Your jays and your magpies may chatter on trees,
And whisper soft nonsense in groves, if you please ;
But a house is much more to my mind than a tree ;
And for groves—oh, a fine grove of chimneys for me. . . .

Then in town let me live and in town let me die,
For in truth I can't relish the country, not I.
If I must have a villa, in London to dwell,
Oh, give me the sweet shady side of Pall-Mall.

It is sad to think that the last line will be almost the only one familiar to our readers, and that the memory of the gallant captain has died away, not indeed 'from all the circle of the hills,' but from the London squares he loved, and which knew him so well.

It is not as a wit that Samuel Taylor Coleridge is chiefly famous, but his *Table-talk* contains many things that would have made the reputation of a diner-out ; sometimes they are metaphorical, as when, upon a friend of Fox's, who would take the very words out of his mouth, and always put himself forward to interpret him, he observed that the man always put him in mind of the steeple of St. Martin's on Ludgate Hill, which is constantly getting in the way when you wish to see the dome of St. Paul's. Sometimes they are philosophic, as when he remarked that all women past seventy, whom he ever knew, were divided into three classes—1. That dear old soul ; 2. That old woman ; 3. That old witch. And again, they are sometimes purely witty, as, 'Some men are like musical glasses—to produce their finest tones, you must keep them wet.'

Coleridge has also left some fine definitions, which are only not witty because of their wisdom. He compares a single Thought to a wave of the sea, which takes its form from the waves which precede and follow it ; and Experience to the stern-lights of a ship, which illumine only the track it has passed.

His epigram on a bad singer is excellent :

Swans sing before they die ; 'twere no bad thing
Should certain persons die before they sing.

With respect to the Irish wits who are introduced in these volumes, the reader is in many cases disposed to imagine that some of the joke must lie in the brogue, which print is unable to render; but Curran is a brilliant exception. There is nothing more humorous in the whole work than the account of his duel with Judge Egan. The latter was a big man, and directed the attention of the second to the advantage which in this respect his adversary had over him.

'He may hit me as easily as he would a hay-stack, and I might as well be aiming at the edge of a knife as at his lean carcass.'

'Well,' said Curran, 'let the gentleman chalk the size of my body on your side, and let every ball hitting outside of that go for nothing.'

Even Sydney Smith never beat this; but he said many things as humorous as this one of Curran's, and indeed was always saying them. Here is one, also, as it happens, respecting fat and leanness. Speaking of having been shampooed at Mahommed's Baths at Brighton, he

said: 'They squeezed enough out of me to make a lean curate.' Every one knows the advice he gave to the Bishop of New Zealand, just before his departure for that cannibal diocese: 'A bishop should be given to hospitality, and never be without a smoked little boy in the bacon-rack and a cold missionary on the sideboard.' The above is perhaps the best example of the lengths to which Sydney Smith's imagination would run in the way of humor; as the following is the most characteristic stroke of Jerrold's caustic tongue. At a certain supper of sheep's heads a guest was so charmed with his fare that he threw down his knife and fork, exclaiming; 'Well, say I, sheep's heads for ever!' 'There's egotism,' said Jerrold.

There is nothing, it has been written, so dreary as a jest-book; and for fear our article on this subject should come under the same condemnation, we here bring it to a conclusion, with a cordial expression of approval of the cake from which we have extracted so many plums.
—*Chambers's Journal.*

THE JEWS IN EUROPE.

WE spoke last week of the doctrine of race in general, not without a special view to the way in which the affairs of South-Eastern Europe are affected by that doctrine. In no part, within Europe at least, does the question of races, or at all events of nations, put on so great importance; because in those countries several political causes have combined to make distinctions of this kind more lasting than they are in the West. And there, for the most part, religion and nationality influence one another in a way which seems strange in the West. Till quite lately we might say that in those regions religion was the badge of nationality; and it is still true, to the extent that a man who changes his religion practically changes his nationality. Religion is there far stronger than language, as is shown by the Greek Mussulmans of Crete, by the Slavonic Mussulmans of Bosnia, and by the smaller communities, whatever may be their origin, of Turkish-speaking Christians. It is only in our own day that purely

national distinctions have at all prominently asserted themselves where there was no religious distinction. A sharp feeling of national rivalry now parts off Greek and Bulgarian, though both alike belong to the Orthodox Church. Yet here again the distinction is in some sort an ecclesiastical one, and was at least brought about by ecclesiastical causes. It was the oppression of the Greek bishops in Bulgaria which, more than anything else, stirred up the Bulgarian national spirit. And the assertion of Bulgarian nationality took an ecclesiastical form, that of the emancipation of the Bulgarian Church from the authority of the Greek Patriarch. In all these ways nationality and religion bear upon one another in a way to which we are not used in the West. When the permanence of distinctions of race which is characteristic of those regions is further strengthened by difference of religion, the tendency to permanence becomes very great indeed. In the West we are used to see men of different religions

bound together by the stronger tie of nationality; we are also used to see settlers of one nation in the land of another adopt in a generation or two the nationality of their adopted country. The descendants of French Huguenots, even of later settlers still, are as good Englishmen as anybody else. But the nations of Eastern Europe and Western Asia, especially when the distinction is religious as well as national, remain distinct, even when they settle in Western Europe. The Greek remains distinct; the Armenian remains more distinct; the Jew remains most distinct of all.

The case of the Jews is the strongest case in all history of a nation preserved in its purity by the possession of a marked and special religion. The phenomenon of the Jew is a characteristic phenomenon of the East, the permanence of national distinctions, carried out to its fullest development. It is carried so much further than in any other case that it seems to differ in kind as well as in degree, and to stand all by itself in history. The Parsees in India come nearest to the Jews; but the preservation of the Parsee nationality and religion is a trifle compared with the preservation of the Jews. The case of the Parsees differs from that of the Jews in three points. First, though the Parsees have certainly remained a distinct people for a long time, yet the time of their separate existence is much shorter than that of the Jews. Secondly, the Parsees are not, like the Jews, scattered over the whole world; they are a colony, originally a colony of refugees, from one particular country. Thirdly, the Parsees are simply part of a nation, the Jews are the whole of their own nation. The Parsees are that part of the Persian nation which clung to the old religion of Persia, and which found a shelter in India from the Mahometan conquerors of their own country. The great mass of the Persian nation stayed at home, and all except a small remnant gradually adopted the religion of their conquerors, though in so doing they gradually gave it a national character of their own. The nation from which the Indian Parsees broke off still remains visible among the nations of the earth. But, though the Jew is everywhere, he is strictly at home nowhere; he is everywhere in the condition of the Parsee in India, though in

many places in a much less fixed position. There is no Jewish nation of any other creed than the Jewish, answering to the Mahometan nation of Persia. And we say this without the least fear of having the Ten Tribes thrown in our teeth. Our case would be just the same even if we had brought ourselves to believe that the English came of the tribe of Ephraim, and the Irish of the tribe of Dan. For the history of the Ten Tribes, if they have any history, is Hebrew history, but it is not Jewish history. The modern Jew, with all that is distinctive in him, dates from the return from Babylon, not from any earlier time. From that epoch the Jew has been distinguished by the fierce tenacity with which he cleaves to his nationality, and to his religion as the badge of his nationality. But that feature never showed itself before the Babylonish captivity, either among the proper Jews, the tribe of Judah, or among the other Hebrews. Till that time the characteristic of the race was rather the ease with which they gave up their religion than the firmness with which from that time till now they have stuck to it. The modern Jew then dates, not from the time of Moses, but from the time of Zerubbabel; and that, to be sure, is a fairly long time of national being. But the Roman conquest of Judæa had a different result from the Saracen conquest of Persia. Crowds of Jews were already scattered through the world, and the Roman conquest sent the rest after them. Here and there a Jew has in later times embraced the religion of the country in which he sojourned; but no Jewish nation abode in Palestine to worship the gods of the Roman conqueror, as a Persian nation abode in Persia to revere the prophet of the Saracen conqueror.

The case of the Jew then differs essentially from the case of the people whose history comes nearer to his than the history of any other people. Still more widely does it differ from the case of those other nations which approach to his in some smaller degree. Armenians and Greeks are widely scattered, far more widely than Parsees, though not nearly so widely as Jews. But in the case of the Greeks the dispersion is much more recent and much more an act of free will than in the other cases. And

there is further the all-important difference that, besides the Armenians and Greeks in other countries, there is a Greece inhabited by Greeks, and an Armenia inhabited by Armenians, while there is no Judæa inhabited by Jews. Such Jews as there may still be in Palestine are sojourners in what was the land of their forefathers, just as much as they are in the countries of their dispersion. The Jews really stand by themselves as the case of a whole nation dispersed in all parts of the world, yet remaining a nation, cherishing a national feeling, but having no local country of its own anywhere. The fact is in itself one of the most familiar of facts, and one of those which are most often used to point a moral, especially a theological moral. But the fact is perhaps better understood, and its really unique and wonderful character stands out all the more plainly, if we compare it with the other facts of history which have a certain likeness to it, and thereby see how wide after all is the difference between this fact and any other—how completely, in short, the position of the Jew stands by itself.

The peculiar position of the Jews is perhaps best of all marked in the treatment which they received in most Western countries in the middle ages. It is a piece of history of which Christian nations may well be ashamed, but it is one which is highly instructive and quite intelligible according to the feelings of the time. The treatment of the Jews, always contemptuous, commonly oppressive, very often bloody, must still be carefully distinguished from the treatment of Christian heretics. The treatment of the Jew was not in the strictest sense religious persecution. The heretic was put to death by a judicial sentence simply for being a heretic. The Jew was not put to death by a judicial sentence simply for being a Jew. The difference is that between a foreign enemy and a domestic traitor. The heretic was a rebel against the Church; and a rebel against the Church was, in the ideas of those times, deserving of punishment at the hands of the State. The Jew was not a rebel against either Church or State, because he had never formed part of either. His position was rather that of a captive enemy, except that he was not a captive enemy, but a

settler who had come of his own accord. Standing outside the Church, standing outside the commonwealth, he had no rights. He was the King's bondman, with whom the King might deal as he pleased, and with whom the people, in any moment of popular outbreak, deemed that they might deal as they pleased also. But he was not an object of regular legal persecution like the Christian heretic. He was tolerated, with a toleration certainly of the most contemptuous kind; still he was tolerated. The heretic might recant, and be received back again into the fold from which he had strayed. If he would not recant, he was cut off altogether. The Jew was not called upon to recant, because he had never been within the fold at all. He was something which stood outside all relations, ecclesiastical and civil; something whose presence might be endured or might be forbidden. He was something outside the law; he could not appeal to the protection of the law; but his mere profession of a faith different from that of the nation was not dealt with as a legal crime.

A state of things like this, in which a certain class of people are condemned to a state which is always one of degradation, and where degradation is ever and anon varied by outbursts of oppression reaching up to general massacres, is one which naturally and rightly offends the feelings of our time. But it is quite intelligible, according to the feelings of an earlier time. The Jew was a stranger; that he was anything else never came into the head either of the Jew himself or of those among whom he sojourned. He might live in England or France, but no one looked on him as an Englishman or a Frenchman. He would himself have disclaimed any such name. He might be oppressed, he might be favored; but he was oppressed or favored as a stranger, not as a countryman. Strangers having no rights, whose religion and whose strongly-marked national habits doomed them to remain strangers, were sure in any moment of religious excitement to be dealt with as enemies. This might well have been the case even if there had been nothing against the Jew except the fact that he was a stranger, and professed a strange religion. But the Jew was more



Engraved for the Collector by J.J. Cade, New York.

WILLIAM BLACK.

than this; he was not merely not a Christian, he was the traditional enemy of Christianity and its Founder. Again, the position of the Jew as a stranger hindered him from taking root in the land, from owning and tilling the land. He alone had his wealth in the form of gold and silver; he became a lender of gold and silver, an exacter of usury, and as such, in such a state of society, he was naturally hateful beyond all other men. No wonder then that, sometimes the caprice of the King whose bondman he was, sometimes the rage of the populace who looked on him as a common enemy, varied his normal state of scornful toleration by occasional irregular wrongs of every kind.

Those days are happily past. The tendency of all Western nations has long been, not only to relieve the Jew from all actual oppression, but to put him on the same civil and political level as the Christian. Yet even in Western countries, even where the Jew is a citizen, and very often as good a citizen as any other, something of his old historical position still clings to him. The zealous benevolence of Jews in one land for their brethren in other lands is a highly honorable feature in the Jewish charac-

ter; still it is part of the old story. It is more than a feeling for co-religionists. It is more than any feeling which a Christian or even a Mussulman has for other Christians or Mussulmans as such. It is a distinctly national feeling. It is a feeling not only for professors of the same creed, but for men of the same nation. Here the doctrine of race may indeed come in in its fulness. The Jews must be very nearly, if not absolutely, a pure race, in a sense in which no European nation is pure. The blood remains untouched by conversion; it remains untouched even by intermarriage. The Jew may be sure of his own stock, in a way in which none of the rest of us, Dutch, Welsh, or anything else, can be sure. The *gens* remain a *gens* by birth, and not by legal fiction. The phenomenon is one of the strangest in all history; the more it is thought of, the more its thorough strangeness comes out. It has also, as a fact that may be looked at from all manner of points of view. At this moment we wish to look at it as a purely historical phenomenon. It has also, as no one need to be told, both a theological and a practical aspect; but on those there is no present need to enter.—*Saturday Review*.

WILLIAM BLACK.

BY THE EDITOR.

MANY readers of the *ECLECTIC* probably made their first acquaintance with the work of Mr. Black through the medium of that charming story "The Strange Adventures of a Phaeton," which first appeared in these pages; but since that time his fame has spread over two continents, and he is now one of the most eagerly read and highly appreciated of contemporary novelists. The carefully engraved portrait of him which embellishes this number of the magazine is reproduced from a photograph taken during his recent visit to this country, which was pronounced by his friends a remarkably accurate and expressive likeness.

WILLIAM BLACK was born in Glasgow, Scotland, on the 13th of November, 1841, so that he is still a comparatively

young man. "His father," to quote a recent article in *Harper's Bazar*, "was an eminent Glasgow lawyer, who died while the future novelist was a young lad, leaving him to the care of an excellent mother, who survives to rejoice in her son's well-earned and honorable celebrity. He was educated at various private schools, and then became editor, novelist, etc. His first public appearance was in journalism. At an early age he became connected with the London *Morning Star*, the principal newspaper organ of the ultra-liberal party of England. It was conducted by the well-known author Mr. Justin McCarthy. When the publication of the *Star* was suspended, Mr. Black joined the editorial staff of the London *Daily News*, and subsequently became the assistant editor

of that journal. As a political writer his style is bright, sparkling and incisive; but although taking a deep and intelligent interest in the questions of the day, his peculiar powers find their highest development in the department of literature in which he has become known wherever people read the English language. As a journalist, he might have remained unknown outside of political circles in England; as a novelist, his fame is world-wide and enduring. Soon after reaching his twentieth year, Mr. Black married a beautiful and accomplished German lady, an artist of great promise. Three years afterward his wife and child died. In the seclusion and solitude that followed this double bereavement he published 'Kilmeny' and wrote several other novels. A few years since he married again, his second choice being a young Scotch lady. His present home is at Denmark Hill in the vicinity of London. Mr. Black came to this country last summer on what he called a prospecting tour. He visited New York, Saratoga, Boston, Philadelphia, and other cities, and made a flying trip to the West beyond Omaha. It is his purpose to return next year with a party of friends, to take a more extended survey of the country. . . .

"Mr. Black is a brilliant and most entertaining conversationist, tells a story with excellent effect, and listens to one with relish. There is nothing of the professional author in his personal appearance. His dress is quiet and in faultless taste. He is a rather dark, slen-

der youngish-looking man, with a quick movement, and dark eyes that look capable of very keen observation, although they are concealed somewhat by glasses. Mr. Black is very modest in speaking of his own literary successes, and during his visit to this country he was often embarrassed by the rather effusive expressions of eulogy to which he was forced to listen from the lips of fair and enthusiastic admirers. At the same time there was no affected modesty in his reserve, and he would sometimes converse with great frankness about his novels."

The author of a pleasant sketch of Mr. Black, published in *Appletons' Journal* some two years ago, says of him: "He is willing to gratify one's curiosity about the whys and wherefores of some of his stories in the most agreeable way. I remember when some one, with true Yankee inquisitiveness, said, 'Oh, Mr. Black, why did Coquette die?' he answered, with a mixture of modesty and good-nature pleasant to recall: 'Why, you see, I didn't want to make her die, but I had to do it. If she had lived, the reader would not have remembered her six hours after he had closed the book.'"

Besides "The Strange Adventures of a Phaeton," Mr. Black has published "In Silk Attire," "A Daughter of Heth," "A Princess of Thule," "Kilmeny," "Love or Marriage?" "The Monarch of Mincing Lane," "The Maid of Killeena &c.," "Three Feathers," "Lady Silverdale's Sweetheart," and "Madcap Violet."

LITERARY NOTICES.

THE PLAINS OF THE GREAT WEST AND THEIR INHABITANTS. By Richard Irving Dodge, Lieut.-Col. United States Army. New York: G. P. Putnam's Sons.

Colonel Dodge has lived for many years on the plains of the Great West, in positions which afforded him exceptional advantages for observation and the acquisition of a wide and varied experience; and his book shows that he has made unusually good use of his opportunities. It is the most animated, most picturesque, and most vivid account of the physical structure, climate, inhabitants, and modes of life of the vast region lying between

the Missouri and the Rocky Mountains that has yet been written; and as it is wholly the product, not of the study of so-called "authorities," or of detailed comparisons of the views of other writers, but of the personal experiences and independent thought of an exceptionally clear-headed and trustworthy man, it possesses much of the value of evidence in a court of law, while its interest has throughout the spice of personal adventure.

Dividing his work into three parts, Colonel Dodge describes first the physical conformation and peculiarities of the country, its climate and meteorological phenomena, and the scenic attractions which are destined to ren-

der certain localities the delight of tourists; and then, reverting with evident satisfaction to his own experience and adventures, presents two highly-interesting and suggestive chapters on "Travel" and "Camp." Both these chapters are full of "plainmen's craft," and abound in those practical details a knowledge of which is so essential to the comfort and important to the safety of whoever would venture upon the Great American Desert. The second section of the book treats of "Game," and gives an exceedingly interesting account of the character, haunts, and habits of the buffalo, wild cattle, elk, black-tailed deer, red-tailed deer, antelope, mountain sheep, wolves, and other wild animals of the plains, together with the game-birds and fishes. The author is evidently a keen and practical sportsman, though with something more than a mere sportsman's interest in his "bag;" and the chapters in this section of his book are among the most fascinating of recent contributions to natural history. The third and last section, comprising nearly half the volume, is devoted to the Indians, and is perhaps the most interesting, as it is certainly the most valuable, of all. Colonel Dodge has had the amplest opportunities for studying the Indian as he really is in his own native wilds; and the mere titles of the chapters will serve to show how comprehensive is his survey. Beginning with a somewhat caustic comparison of the Eastern (or romantic) and the Western (or practical) ideas of the Indians, he treats successively of their "Tribal Government," "Religion," "The Medicine Dance," the "Happy Hunting Grounds" (in other words, the belief in a future state), "Burial of the Dead," "Love, Courtship, and Marriage," "Social Life," "Gambling, Drinking, and Amusements," "Names," "Disease," "Food," "Clothing," "Employment," "Trade," "Drilling," "Fighting," "Captives," "Scalping," "Stealing," "Trailing," "Travelling," "Cruelty," "Ponies," and "Squaw Men." It must be confessed that the picture thus drawn with such painstaking realism and fidelity is the reverse of agreeable; but it could hardly be expected that a man who for thirty years has been confronted with such facts as Colonel Dodge records here, should entertain the same conception of the "noble red man" as that which has been so industriously promulgated by sentimental novelists, interested agents, and professional humanitarians. The portrait which he offers is of an utter savage, of a peculiarly sinister and cruel type; and it is probably a true one.

Colonel Dodge's own work is introduced by a lengthy chapter from the pen of Mr.

William Blackmore, an Englishman who has had much experience of "the Plains," and who supplements the narrative of Colonel Dodge with an account of the present numbers and *locale* of the various Indian tribes, of the chief events in recent Indian history, and of the causes of Indian wars. A serviceable map of the Western States and Territories accompanies the volume, and there are twenty pictures which add little to the attractiveness and nothing to the usefulness of the book.

SELECTIONS FROM THE WRITINGS OF LORD MACAULAY. Edited, with Occasional Notes, by George Otto Trevelyan, M.P. New York: Harper & Bros.

In the preface to the present compilation Mr. Trevelyan truly observes that the character of Macaulay's work is such that his productions lend themselves with unusual facility to the labors of the selector. "Never forgetful of Cowper's precept that 'perspicuity is more than half the battle,' he took care that any one who opens his volume shall be able to read forward, with pleasure and understanding, at whatever page or paragraph he may commence his studies. In the History, every scene is of itself a story—finished, continuous, self-contained; passing smoothly and swiftly on, from its first course to its closing catastrophe. In the Essays, though, from the nature of the composition, picturesque episodes are less frequent than in the History, not a few narratives may easily be found which are perfect and complete in all their parts." All this is well exemplified in the work before us. No doubt any passage, however striking, is better in its place than when detached from its proper context; yet the descriptions of the battles of Sedgemoor, of the Boyne, of Landen, and of Killiecrankie, the narrative of the siege of Londonderry, the historical portraits of Charles the Second, of William of Orange, of Samuel Johnson, and of Frederick the Great, the account of the Phalaris controversy, of Jeremy Collier's attack upon the dramatists, and of the sufferings which Miss Burney endured in her capacity of waiting-woman to Queen Charlotte—all these, and many more like them, suffer scarcely at all in being presented as separate and complete pictures, while the variety of topics thus compressed into a small space will probably attract readers who might be debarred by lack of time or means from attempting the more voluminous works from which they are taken.

It can hardly be said that the "Selections" furnish an adequate substitute for more intimate acquaintance with Macaulay; yet they may be read with keen pleasure, and will

undoubtedly have the effect of inspiring the reader with a desire for the original works.

THE HISTORY OF THE BUNKER HILL MONUMENT ASSOCIATION DURING THE FIRST CENTURY OF THE UNITED STATES OF AMERICA. By George Washington Warren. Boston: *J. R. Osgood & Co.*

In this large and handsome volume Mr. George Washington Warren, for many years the honored and efficient president of the Bunker Hill Monument Association, gives a complete history of the work of the association from its origin in the famous controversy over General Henry Dearborn's account of the Battle of Bunker Hill, in 1818, to the year 1876, when the surviving members could look back over the full accomplishment of their design in the erection of the most noted of all the historic monuments of America. As the author himself acknowledges in his modest preface, some of the matter quoted is of a trivial character; but on the other hand, some of it is of great value, and the book abounds in interesting reminiscences of Daniel Webster, Edward Everett, T. H. Perkins, William Prescott, Robert C. Winthrop, and many other men of like eminence who at one time or another have been officers of the Association. There are also a large number of autographic fac-similes of letters and curious documents, eleven full-page steel engravings, and several heliotype illustrations; and the book, as a whole, forms a worthy literary memorial of a great and patriotic work.

DICTIONARY OF THE FRENCH AND ENGLISH LANGUAGES. By Ferdinand E. A. Gasc. New York: *Henry Holt & Co.*

The advantages claimed for this dictionary are that it is better arranged, more comprehensive, more compact, and more precise and concise in its definitions than any work of the kind previously offered to the public. It contains upwards of fifteen thousand new words and meanings, and includes the very latest additions to the vocabulary that have been made in the most recent works of authoritative writers. A scientific system of abbreviations saves much space, and the signs which indicate pronunciation are few in number and easily carried in the mind. A distinctive feature of the dictionary is that it contains no "padding"—no useless repetition—and is thus enabled, in its comparatively moderate bulk, to carry more solid information than is given in many a padded dictionary of twice its size. The book is clearly and carefully printed, and handy in shape.

FRIEND FRITZ: A TALE OF THE BANKS OF THE LAUTER. Translated from the French

of Erckmann-Chatrian. New York: *Scribner, Armstrong & Co.*

The so-called "patriotic" feeling which usually pervades the work of MM. Erckmann-Chatrian is comparatively absent from "Friend Fritz," as is also the background of war and battle and bloodshed against which his characters are usually projected. It is a simple love-story of the most ingenuous character, in which a young German plays the most conspicuous part, while a French peasant-girl is the unconventional heroine. The story is an interesting one, though entirely devoid of sensational or exciting incidents, and there are plenty of those felicitous descriptions of natural scenery and those shrewd and realistic character-studies which distinguish all the writings of these authors. "Friend Fritz" only occupies about two thirds of the volume, the remaining space being filled by a short story entitled "The College Life of Maitre Nablot," a vivid, if somewhat diminutive, picture of provincial life in France during the period of Louis Philippe.

LIFE IN SOUTH AFRICA. By Lady Barker. Philadelphia: *J. B. Lippincott & Co.*

As most of the letters composing this agreeable little volume have already appeared in the *ECLECTIC*, it is not necessary to say much concerning their character and quality. They are the product of a sprightly, sunny, and amiable disposition, and of a well-informed and keenly-observant mind; and though written in the unstudied style of familiar correspondence, they give a very lively idea of life in Cape Colony, Natal, and other British possessions in South Africa. Certain gaps in the series of letters, as originally published in the magazine, are here filled up, and the entire collection will be found well worth re-perusal.

FOREIGN LITERARY NOTES.

THOSE interested in Abyssinian matters will be glad to hear that Dr. Beke's manuscript journals, maps, and illustrations of his travels in Abyssinia from 1840 to 1843, are now in the British Museum.

MR. EDWARD A. FREEMAN has in the press a small volume, entitled "The Ottoman Power in Europe; its Nature, its Growth, and its Decline," which will be published immediately by Messrs. Macmillan & Co.

DR. BIRCH has in the press an "Egyptian Reader," consisting of about one hundred pages of texts with translation and transliteration on the principle adopted by the

Committee of the International Congress of Orientalists.

MR. G. H. LEWES AND MRS. LEWES (GEORGE ELIOT) are going, after next June, to live in Surrey, in which county they have purchased a house that formerly belonged to Sir H. Cole. It is not unlikely they may give up their house in London altogether.

"THE HISTORY OF MATERIALISM," by Professor F. A. Lange, is amongst Messrs. Trübner's forthcoming publications. This is an authorised translation from the last German edition, by Mr. Ernest C. Thorney, B.A., late Scholar of Trinity College, Oxford.

THE present Cabinet in Turkey is quite a literary party, consisting of the remaining colleagues of Fuad and Ali Pashas. Besides Munif Pasha, it includes Ahmed Yefik Efendi, historian and numismatist; Ahmed Jevdet Pasha, the mollah, the historian of Turkey; Kadri Bey, now Pasha, the rival and coadjutor of Munif Pasha in the educational cause; and Ohannes Effendi Chamich, the best writer in Turkish among the Armenians.

A CORRESPONDENT says it is not generally known that Burns was *not* the composer of "Auld Lang Syne." In a letter to Thomson (of the "Seasons") Burns expressly states that the song is not his, but that he wrote it down from hearing it sung by an old man, and Burns invokes the blessings of heaven on the head of the unknown minstrel. The same correspondent informs us that "Black-Eyed Susan" was not written by Dibdin, to whom it is generally imputed.

It is rumored that the *Revue des Deux-Mondes* is to be sold, and that its future tone depends on the man into whose hands it falls—whether into those of M. Buloz's son-in-law, M. Pailleron, or those of his son, M. Charles Buloz. In the former case it will be clerical and reactionary; in the later, Liberal. Its best hope of success, says the Paris correspondent of the *Academy*, lies in its remaining what it is, leaning neither to the right nor to the left, and continuing to live with the impulse it has already received.

M. ROTHSCHILD, the well-known Paris publisher of *ouvrages de luxe*, has in preparation a second volume, as a supplement to the sumptuous work on Venice which he issued lately. M. Charles Yriarte has been at Venice for the purpose of collecting fresh materials, and much assistance has been obtained from the Library of St. Mark's, the Bibliothèque Nationale, and the library of M. A. Firmin-Didot. The book will contain chapters with the following headings: "Painting," "Typography and Literature," "Costume,"

"Lace," "Glass," "Mosaics," "The Doge," "Medals," "The City," "Venetian Life." It will contain at least three hundred wood-cuts.

THERE will soon be no such thing as a "Jesuit in Disguise." The volume of "Records of the English Province of the Society of Jesus," which was printed for private circulation at the Manresa Press in 1875, is to be thrown upon the market, for any one who likes to buy of Messrs. Burns & Oates. It is to be followed in the course of the summer by a second volume, of some seven hundred pages, full of curious information on the personal history of the English members of the Society, derived from the archives at Rome, Belgium, Spain, and elsewhere, and is likely to prove a very valuable collection in more ways than one. The Jesuits just now seem to be courting publicity, and appear to believe that the more Englishmen know of them the better they will love them. Who knows?—*Athenaeum*.

SCIENCE AND ART.

THE CONTROVERSY ON SPONTANEOUS GENERATION.—Dr. Bastian having asserted that bacteria are generated *de novo* in sterilised urine, when this is rendered neutral by the addition of *liquor potassae* and kept at a temperature of 115°-122° F., M. Pasteur, by merely substituting solid caustic potash for the solution, prevented any living organisms from making their appearance in the neutral or feebly alkaline urine. To this Dr. Bastian rejoined that the failure of his experiment in Pasteur's hands might be accounted for by a larger proportion of potash having been added to the urine than was required for its exact neutralisation. The question has been subjected to a renewed investigation by MM. Pasteur and Joubert (*Comptes Rendus*, January 8, 1877) with a view to ascertain how far this objection may be valid. They now find: first, that no living organisms make their appearance even when the quantity of solid caustic potash added to the boiled urine is just sufficient for its exact neutralisation; secondly, that the presence of potash in sensible excess, rendering the liquid decidedly alkaline, does not militate against the success of Dr. Bastian's experiment, provided it has been added in solution, and not in the solid form. Dr. W. Roberts and Prof. Tyndall have arrived, on independent grounds, at exactly the same conclusions as M. Pasteur (*Proceedings of the Royal Society*, December 21, 1876). They prove that the evolution of organisms in the alkali-d urine is simply due to the introduction of germs contained in the *liquor potassae*. It has been shown—by M. Pasteur many years

ago, by Dr. Roberts more recently—that alkaline liquids are less easily sterilised by heat than acid ones; though the nature of the protective influence exerted on germs by an alkaline medium is still a mystery. Exposure to the temperature of boiling water does not destroy bacterial germs suspended in a solution of potash. When the solution is kept in an oil-bath at 280° F. for fifteen minutes (Roberts), or even at a temperature of 220° F. for the same length of time (Tyndall), it is completely sterilised, and may then be added to boiled urine without any risk of setting up putrefactive changes, or ministering to the “spontaneous” development of life.

OZONE.—The last number of the *Journal* of the Scottish Meteorological Society contains a discussion by Mr. Buchan of the results of nineteen years’ ozone observations made at twenty-eight stations. That these observations are far from being satisfactory as yet appears from the fact that the Ozone Committee have still 100 guineas in hand, and invite investigators of the problem of putting the subject on a scientific basis. The stations are classified in six groups. The first of these, consisting of two stations at upwards of 1,000 feet elevation, shows the absolute maximum. On the whole, the conditions favorable to a large development are elevation and proximity to the west coast, while the lowest figures are in the group representing large towns. At all the stations, except those in the first group, the minimum is in November, the maximum in spring.

THE SUN’S ROTATION MEASURED WITH THE SPECTROSCOPE.—We have to record the most remarkable achievement yet effected with the spectroscope, though involving no discovery, at least no new result which can as yet be regarded as demonstrated. It will be within the knowledge of our readers that Secchi, having failed to recognize the effect of the sun’s rotation by the spectroscopic method of measuring motions of recession and approach, expressed doubts as to the validity of the method itself. These were partly based on an erroneous estimate which in some inexplicable way Secchi had formed respecting the actual rate of the sun’s rotational movement at the equator, this rate in reality amounting to only a small fraction of Secchi’s estimate. Huggins also failed in obtaining spectroscopic evidence of the solar rotation, though he used a spectroscope made by Browning for Spottiswoode (the only one of the kind ever made), on a plan devised by Proctor (the automatic battery S-shaped and twice-acting), giving a dispersive power equal to that of nineteen equilateral prisms of flint glass. The observers

at Greenwich have not as yet announced the final results of their attempt to measure the sun’s rotation spectroscopically, though from the general statement made by Sir G. Airy it would seem they have successfully dealt with the problem. In the meantime it has been mastered by Professor Young, of Dartmouth College, Hanover, N. H. Employing one of the marvellously effective ruled plates, made by Dr. Rutherford, which give diffractive spectra of singular purity, he has succeeded in unmistakably recognizing the spectroscopic effects of the sun’s rotation. He regards his instrumental means with so much confidence that he relies even upon the difference between his results and those due to the direct measurement of the solar rotation. He finds the sun’s atmosphere to be travelling somewhat faster than the visible solar surface. We are not sure that his confidence in this particular detail of his results is justified by the performance of his spectroscopic combination in other cases. The difference of rate, about ten miles per minute, seems too small to be measured in this way. But, in any case, it is satisfactory to find that a motion so small as that due to the sun’s rotation, about one mile per second (or a difference, for opposite points of his equator, equal to about two miles per second), can be recognized by the spectroscopic method, as this enables us to regard with considerable confidence the measurements of stellar motions of recession and approach, amounting, as these often do, to twenty, thirty, or even so many as fifty miles per second.

LAW OF REFRACTION.—Professor Foster, at a recent meeting of the Physical Society, exhibited and described an instrument for illustrating the law of refraction. It is founded on the well-known method of determining the direction of the ray after refraction, by means of two circles described from the point of incidence as a centre, the ratio of whose radii is the index of refraction. If the incident ray be projected to meet the inner circle, and through the point of intersection a vertical line be drawn, the line drawn from the point of incidence to the point where this meets the outer circle is the direction after refraction. This principle is applied in making a self-adjusting apparatus as follows:—A rod representing the incident ray is pivoted at the point of incidence, and projects to a point about four inches beyond. To its extremity is attached a vertical rod, which slides through a nut in another rod, also pivoted at the point of incidence. The lower extremity of the vertical rod is attached to a link, so fixed as to constrain it to remain vertical. By this means the two rods always represent respectively the

incident and refracted rays, and the index of refraction can be varied by altering the position of the nut through which the vertical rod passes, on the rod to which it is attached.

OBSERVATIONS OF JUPITER'S SATELLITES.—Mr. Todd, of Adelaide, has communicated the results of his observations of Jupiter's satellites to the Royal Astronomical Society, and, independently of their value with reference to the complicated theory of the motions of the satellites, the observations are interesting from the circumstance that on several occasions Mr. Todd actually saw the satellite through the atmosphere of Jupiter as it passed behind the body of the planet. This supplies a remarkable confirmation of the views propounded by Mr. Brett and Mr. Burton as to the existence of an atmosphere of some ten thousand miles in thickness, views which have been much controverted in certain quarters, but which would now seem to be fully established. These results show how much may be done to advance our knowledge of the physical condition of the planets, by careful observers with well-trained eyes. Another series of observed eclipses of Jupiter's satellites is given by M. Tisserand in the *Comptes Rendus*. The observations were made during the last opposition at the Toulouse Observatory, with a reflector of thirty-one inches' aperture and a refractor of four inches, and the remarkable circumstance about them is, that the diameter of the planet with the reflector would appear to be larger than with the refractor, which is contrary to the law that the larger instrument gives, *ceteris paribus*, the smaller diameter. This may, however, be accounted for by personality in the observers, for it is hardly likely that the definition of the large reflector is so bad as to make it inferior to the small refractor.

NUMISMATIC DISCOVERY.—A numismatic discovery, almost unparalleled in extent, has been made near Verona. Two large amphoræ have been found, containing no less than two quintals, or about 600 English pounds weight, of coins of the Emperor Gallienus and his successors within the hundred years following his reign. The number of coins is estimated at between 50,000 and 55,000. Of those of the Emperor Probus there are more than 4,000. The majority are of bronze, but there are some of silver, and others of bronze silvered (*suberate*). They are all in the finest state of preservation, and, with the exception of those of Gallienus, which are a little worn, they are so fresh from the mint as to make it evident they were never put into circulation. The discovery has been considered of sufficient importance for the Minister of Public Instruction

to despatch Signor Pigorini specially to Verona to report upon it. All the finest examples are to be placed in the Museum of Verona, and the remainder either exchanged in sets with other museums, or sold, as may be decided upon.

INSECTIVOROUS PLANTS IN TASMANIA.—Mr. Darwin, we have no doubt (writes the *Lancet*), will be interested to learn that there are in Tasmania plants that capture, kill, and digest insects. Dr. Crowther, of Campbell Town, in a letter to the colonial paper, describes the insectivora. The plant grows on rocky ground, whose crevices contain rich organic soil, "different from the peaty soil Darwin's grew in." It is about six inches in height, and from its single vertical stem project from one to two dozen small footstalks, at irregular and variable distances. On the summit of each footstalk is a rounded disc, placed horizontally about half an inch in circumference, fringed with tentacles of different sizes. In the centre is a hollow, with small firm filaments projecting vertically; on the ends of both filaments and also tentacles are little reddish glands, which secrete "a sticky material." The fly rests on the outer zone, is conveyed by the sticky tentacles to the centre, which at once closes upon the victim so tight that a bulging may be seen corresponding to the fly inside. After awhile the trap again opens, showing the *débris* of the fly, and all is ready for the reception of another victim.

THE AUSTRALIAN 'GUM-TREE.'—We have more than once mentioned the Australian 'gum-tree'—*Eucalyptus*—and the remarkable properties by which it checks malaria and the noxiousness of marshes. Dr. Angus Smith, F.R.S., believes that the neighborhood of Rome, the malarious, unhealthy Campagna, might be rendered habitable by large plantations of the eucalyptus. He has visited the locality, and saw an experiment on a small scale, about four miles from Rome, which appeared to be satisfactory. 'As one enters the garden,' he says, 'there is a peculiar odor perceptible: it is fragrant, pleasant, and resinous; some compare it to that from turpentine, some to the black currant; but every one attempts to give the name of some other odor as evidently mixed with this more prominent one. . . . This experiment shows that men may live in health in one of the worst parts of the Campagna with proper precautions. Instead of a neglected country with scarcely a house, it might be a pleasant habitation, as it once was, for many thousands. . . . We are informed that the tree itself with its exhalation is quite sufficient to render a district healthy; and it is perfectly certain that if the oil is effi-

cacious, and the evidence gives faith, those who live near must be continually taking in doses which must soon equal in amount that usually given as a cure. They must, in fact, be living in a constant vapor of this healing oil.' More on this interesting subject may be found in the *Proceedings* of the Philosophical Society of Manchester, vol. 13.

A TRANS-AFRICAN TELEGRAPH LINE.—A line of telegraph from one end of Africa to the other is talked of. From Alexandria to Khar-toum, 1100 miles, a wire is already erected, and is to be carried on to Gondokoro. From this place to the northern termination of the South African lines stretching from Cape Colony, the distance is about two thousand miles; and it is thought that to erect and maintain a line across that wild region would not be more difficult than it was to carry a line across the great continent of Australia. Travellers in the interior might then flash their messages to Cairo or Cape Town at pleasure.

VARIETIES.

ATTENDING HIS OWN FUNERAL.—It was generally supposed that Sir Giles —, the sceptic of — Park, died abroad, but he did no such thing, and a few years after the occurrences to be related the truth oozed out. After living a very retired life for some years, shunning society and only going out at night-fall, Sir Giles, just as his woods were putting on their fairest spring verdure, retired to the continent, taking with him an old and faithful servant. To this domestic he declared his scheme, which was to give out that he was dead, and to procure a mock funeral. The old servant had never in all his life dreamed of disputing his master's wishes, and did not do so now, while to secure his fidelity Sir Giles showed him a very beneficial codicil to his will, not available except in case of his real or supposed death. The old domestic then becomes acquainted with some of the attendants at an hospital, and under the pretence that his master is a professor of anatomy, procures a body, conveys it to the lodging, and all the minor matters prepared for the deception, tells the people of the house that a friend of his master's had died suddenly while paying him a morning visit. The body, under the real name of his master, is coffined, and magnificent orders given for the interment. Things being in this state the domestic writes to the next heir an account of his master's sudden death, states that he was obliged to deposit the body in lead, and that he awaits "further orders." The heir arrives with a little show of sorrow,

which, strange to say, rather amused than offended old Sir Giles, who, disguised with a red wig and otherwise metamorphosed, has contrived to become one of the official attendants at his own funeral; the servant having recommended him to the undertaker. Every thing was magnificently ordered as becoming the rank of so important a man. In his capacity as assistant undertaker he was initiated into all the mysteries of the craft, and felt a new joy in his misanthropy. For the first time in his life he was not miserable. Happy to him was the day of his death, but far happier that of his burial. He looked upon his heir as a fool who had taken the burden of his station and property off his shoulders; and as he would only have hated him the more had he shown any feeling on the occasion, he was quite indifferent as to his attitude. After his own funeral Sir Giles walked away, no one ever knew whither, bequeathing, as he believed, all the miseries of unalloyed prosperity to his heir. His epitaph was found among his papers, written by himself, and duly inscribed on his supposed tomb. After some years the old domestic died, bequeathing his money to a chapel; but before his dissolution, he relieved his conscience by disclosing this strange story.—*From "The Last Act," being the Funeral Rites of Nations and Individuals.*

ROME AND HER RIVALS.—A city which has twice been the rival of Rome has of itself no mean place in history. But that the history of the world should run in such cycles that Rome could, at two stages of her being, find a rival in the sight of the Palatine—that the city whose borders had once been on the Tigris and the Solway should come again to strive on equal terms with enemies on the Alban Hills—this teaches us a more instructive lesson still. Rome was the victim of her own greatness. It was because Rome had first subdued, then incorporated, the whole civilised world—because all the Mediterranean lands had been merged in Rome and all their free inhabitants had become Romans—because, as Rome was everywhere, the sovereign of Rome was as much at home at York, or at Antioch, at Byzantium or at Aachen, as he was on the Palatine or the Capitol—it was directly because of all this that a day came when Rome was again a single Latin city waging war with other Latin cities. Nay more, it was because of all this that a day came when Rome stooped to receive her bishops at the bidding of the lords of the city whose earlier lords had fought to restore her Tarquins. On the same range of hills, within sight of Rome, lay two cities, by whose side Rome was young. Both were kindred cities; one, so legend said, was

Rome's own metropolis. Both were swept from the earth in local warfare with Rome. But a long time indeed passed between the earlier and later deed of destruction. One perished before trustworthy history begins; the other perished as it were yesterday, in the twelfth century of our æra. Rome, in her infancy, deemed the ruin of Alba needful for her own safety. Then came a time when a like plea called for the ruin of Corinth and Carthage and Jerusalem. Then came again a time when her enemies were once more at her gates, and Tusculum perished as Alba had perished eighteen hundred years before. And mark too that Rome's wrath in both ages was more abiding against the nearer victims. A day came when Roman dictators and emperors bade Corinth and Carthage and Jerusalem rise from their ruins. No such command ever went forth to Alba or to Tusculum. Tusculum is still a forsaken ruin on its hill-top; Alba has perished so utterly that scholars dispute about its site.—*Historical and Architectural Sketches by E. A. Freeman.*

ANGELS' TEARS.

THE lily weeps at even;
For vapors, fall'n anew
From the clear vault of heaven,
Turn at the touch to dew.
'Tis only so heaven's tearless eyes
With mortal woes can sympathise.

There lives one purest maiden,
Most like the lily-bell,
And when her eyes are laden
With tear-drops, you can tell
The angels' sympathy appears
Distilled in those deep eyes to tears.

F. W. B.

FRIENDSHIP AND LETTERS.—Friendship makes letter-writers—it is one of its offices and good works; especially are the friendships of women fruitful in this private domestic literature. The letters of Miss Carter and Miss Talbot show a friendship sustained on a very high level of thought and feelings; and others more recent and more familiar to the general readers furnish examples more than enough. Yet we are tempted to give one letter, the close of a long friendship, as a testimony to the strength and fidelity of this relation perhaps especially among women. It is from Lady Charlotte Lindsay—noted for her wit and that plainness of features of which she remarked, on growing old, that time had taken away the bloom of her ugliness, and reduced her to the commonplace—to her friends the Miss Berrys. Both these ladies were between eighty and ninety, and how far the writer was on the wrong side of seventy we have no ready means of ascertaining. "Dec. 14, 1849.—I cannot wait till half-

past six, but must say a word now to thank you for all the kind tokens I got yesterday. You say that you are the most grateful of my friends. Dearest Mary, that gratitude is due to your Creator, who made you so lovable that I could not help loving you. But what gratitude do I owe Him, who, when I had the misfortune to survive all those who were nearest and dearest to me, disposed two hearts, like yours and dear Agnes's, to receive into your intimacy and warm affection a heart that must otherwise have withered in hopeless solitude! Whenever either of you feel low and discouraged, as we all do at times, say to yourselves, 'there is one creature at least who owes to us the comfort of her latter days.'" Letters are an invaluable sustainer of friendship, but no friendship can live on them. It is a delusion that a mere correspondence, whether daily, monthly, or weekly, can supply the ailment for a lively, tenacious, thorough friendship; there must be a personal intercourse; for one reason, the letters, to be intimate and unrestrained, and written in any mood, and upon the spur of the moment, cannot fail now and then to jar upon the receiver. When two people talk, they are alive to each other's state of temper and feeling. No one can guess the condition of his friend at the time he receives his letter. It may be written on impulse, and read in weariness, or in a testy mood. Or, if cheerful, a jest falls on a sore place. A snub may be detected where none was meant, a thought written under the presence of strong feeling may be misunderstood. Letters cannot attempt to supply the place of conversation between two vigorous minds without making room for some of these hitches; and if the topics of the letters never touch on delicate themes, never approach points where there may be a difference of opinion, then they do not keep friendship alive at the proper heat. All great friendships live in personal intercourse, and therefore it is there are so few of them; and therefore that they do not remain unimpaired and in full strength to old age; and therefore indolence should not stand in the way of as frequent meetings as the engagements of life will permit. We have such facilities for this frequent intercourse as the world never knew before; but may not the increased luxury of living throw in difficulties in a new direction? If we have to make great preparations for the due reception of our friend, the invitation often does not get sent. When Bishop Sanderson and his dear and most intimate friend, the learned Dr. Hammond, met "to enjoy a quiet conversation, and rest together for some days" at a time, we may be sure the fare would be

simple, and where a good apple was with one the chosen delicacy, the dessert easily procured. It is the eye to eye, voice with voice encounter, that keeps such friendships alive, and the hospitalities of welcome are their great promoter.—*Blackwood's Magazine*.

SHELLEY'S SECOND MARRIAGE—THE HONEY-MOON.—It was not until the summer of 1814 that Shelley and Mary Godwin became really acquainted, when he found the child whom he had scarcely noticed two years before had grown into the woman of nearly seventeen summers. The story has often been told, and told in different ways; but the facts as far as they can be gleaned from the scanty entries in Godwin's Diary are these. Shelley came to London on May 18th, leaving his wife at Binfield, certainly without the least idea that it was to be a final separation from him, though the relations between husband and wife had for some time been increasingly unhappy. He was of course received in Godwin's house on the old footing of close intimacy, and rapidly fell in love with Mary. Fanny Godwin was away from home visiting some of the Wollstonecrafts, or she, three years older than Mary, might have discouraged the romantic attachment that sprang up between her sister and their friend. Jane Clairmont's influence was neither then, nor at any other time, used, or likely to be used, judiciously. It was easy for the lovers, for such they became before they were aware of it, to meet without the attention of the parents being drawn to the increasing intimacy, and yet without any such sense of clandestine interviews as might have disclosed to themselves whither they were drifting. Mary was unhappy at home; she thoroughly disliked Mrs. Godwin, to whom Fanny was far more tolerant; her desire for knowledge and love for reading were discouraged, and when seen with a book in her hand, she was wont to hear from her step-mother that her proper sphere was the store-room. Old St. Pancras churchyard was then a quiet secluded spot, where Mary Wollstonecraft's grave was shaded by a fine weeping willow. Here Mary Godwin used to take her books in the warm days of June, to spend every hour she could call her own. Here her intimacy with Shelley ripened, and here, in Lady Shelley's words, "she placed her hand in his, and linked her fortunes with his own." It was not till July 8th that Godwin saw in any degree what was going on. The Diary records a "Talk with Mary," and a letter to Shelley. The explanation was satisfactory—it was before the mutual confession in St. Pancras churchyard—and Godwin and Shelley still met daily; but the latter did not dine again in Skinner street.

On July 14th Harriet Shelley arrived in London. It is quite certain that Godwin used all his influence to restore the old relations between husband and wife; and on the 22d "Talk with Jane, letter fr. do. Write to H. S.," evidently refer to his dislike of the attention which Shelley now paid his daughter. But it was too late; for on July 28th, early in the morning, Mary Godwin left her father's house, accompanied by Jane Clairmont. They joined Shelley, posted to Dover, and crossed in an open boat to Calais during a violent storm, during which they were in considerable danger. As soon as the elopement was discovered Mrs. Godwin pursued the party. Charles Clairmont wrote to break the news to Fanny, and devoted himself to his stepfather during the three days of uncertainty, till Mrs. Godwin returned from Calais on July 31st. On the evening of their arrival at Calais, Shelley and Mary began a joint diary, which was continued by one or the other through the remainder of Shelley's life. The entry for the second day gives an account of the entrance into their room of the landlord of the Calais Hotel to say that "a fat lady had arrived who said that I had run away with her daughter." As all the world knows, her persuasions had no avail, and she returned alone; Jane Clairmont, in spite of her mother's remonstrances, determined to stay with Shelley and Mary. The three went to Paris, where they bought a donkey, and rode him in turns to Geneva, the others walking. He was bought for Mary as the weakest of the party, but Shelley's feet were soon blistered, and he was glad to ride now and then, not without the jeers of the passers by, in the spirit of those who scoffed in the Fable of the "Old Man and his Ass." Sleeping now in a cabaret and now in a cottage, they at last finished this strange honeymoon, and the strangest sentimental journey ever undertaken since Adam and Eve went forth with all the world before them where to choose.—*William Godwin: His Friends and Contemporaries*.

THE PROMISE.

I REMEMBER what you said
While the stars shone overhead,—
Frosty stars that gleamed above,—
When I saw you last, my love!
Hand in hand, I said good-by;
Heart to heart, you made reply:
"Footsteps parting in the snow
Meet again when roses blow!"
Roses budded, bloomed, and fled—
All the summer-flowers are dead;
Autumn showered her rainy tears—
Hopes have faded into fears.
Frosty stars are shining now,
Once again, above my brow.
Summer-streams to ice are chilled,
And thy promise—unfulfilled!

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THIRTY-SECOND ANNUAL REPORT

OF THE

NEW-YORK LIFE INSURANCE COMPANY.

Office, Nos. 346 and 348 Broadway.

JANUARY 1, 1877.

Amount of Net Cash Assets Jan. 1, 1876, \$30,166,902 69

REVENUE ACCOUNT.

Premiums.....	\$5,910,940 87
Interest received and accrued.....	\$2,164,080 81
Loss amount accrued Jan. 1, 1876.....	257,130 86— 1,906,949 95— \$7,817,700 87
Total.....	\$37,984,693 51

DISBURSEMENT ACCOUNT.

Losses by death.....	\$1,547,648 42
Dividends and returned premiums on canceled policies.....	2,516,891 16
Life annuities, matured endowments, and reinsurance.....	634,290 33
Commissions, brokerages, agency expenses, and physicians' fees.....	373,001 67
Taxes, office and law expenses, salaries, advertising, printing, etc.....	375,604 38
Reduction of premiums on United States stocks.....	140,323 52
On other stocks.....	65,307 19— \$5,233,795 31
Total.....	\$32,730,898 20

ASSETS.

Cash in Trust Company, in banks, and on hand.....	\$1,427,983 18
Invested in United States, New-York City, and other stocks (market value \$10,311,045.67).....	9,790,829 91
Real estate.....	2,511,576 46
This includes real estate purchased under foreclosure, amounting to \$773,422.25, a recent appraisal of which, by competent parties, shows that, when sold, the company may reasonably expect to realize at least its cost.	
Bonds and mortgages, first lien on real estate (buildings thereon insured for \$15,321,000, and the policies assigned to the company as additional collateral security).....	17,354,837 84
*Loans on existing policies (the reserve held by the company on these policies amounts to \$3,659,450.....)	731,565 39
*Quarterly and semi-annual premiums on existing policies, due subsequent to Jan. 1, 1877.....	432,095 40
*Premiums on existing policies in course of transmission and collection (estimated reserve on these policies \$505,000, included in liabilities).....	125,027 15
Agents' balances.....	56,154 19
Accrued interest on investments to Jan. 1, 1877.....	300,526 68— \$32,730,898 30
*A detailed schedule of these items will accompany the usual annual report, filed with the Insurance Department of the State of New-York.	
Excess of market value of securities over cost.....	880,515 76

Cash assets, Jan. 1, 1877..... \$33,311,413 96

Appropriated as follows:	
Adjusted losses, due subsequent to Jan. 1, 1877.....	\$314,440 98
Reported losses awaiting proof, etc.....	301,132 21
Reserved for reinsurance on existing policies: participating insurance at 4 per cent Carlife, net premium, non-participating at 5 per cent Carlife, net premium.....	29,634,461 61
Reserved for contingent liabilities to Fontaine Dividend Fund, over and above a 4 per cent reserve on existing policies of that class.....	517,504 84
Reserved for premiums paid in advance.....	17,088 32— \$30,694,597 96
Divisible surplus at 4 per cent.....	\$2,626,816 00

Surplus, estimated by the N. Y. State standard at 4½ per cent, over... \$5,500,000 00

From the undivided surplus of \$2,626,816, the Board of Trustees has declared a reversionary dividend, available on settlement of next annual premium to participating policies, proportionate to their contribution to surplus. The cash value of the reversion may be used in such settlement if the policy-holders so elect.

DURING THE YEAR 6514 POLICIES HAVE BEEN ISSUED, INSURING \$20,022,111.

Number of policies in force Jan. 1, 1876, 44,661.
Number of policies in force Jan. 1, 1877, 45,621.

Amount at risk Jan. 1, 1876..... \$126,132,119 00
Amount at risk Jan. 1, 1877..... 127,748,473 00

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